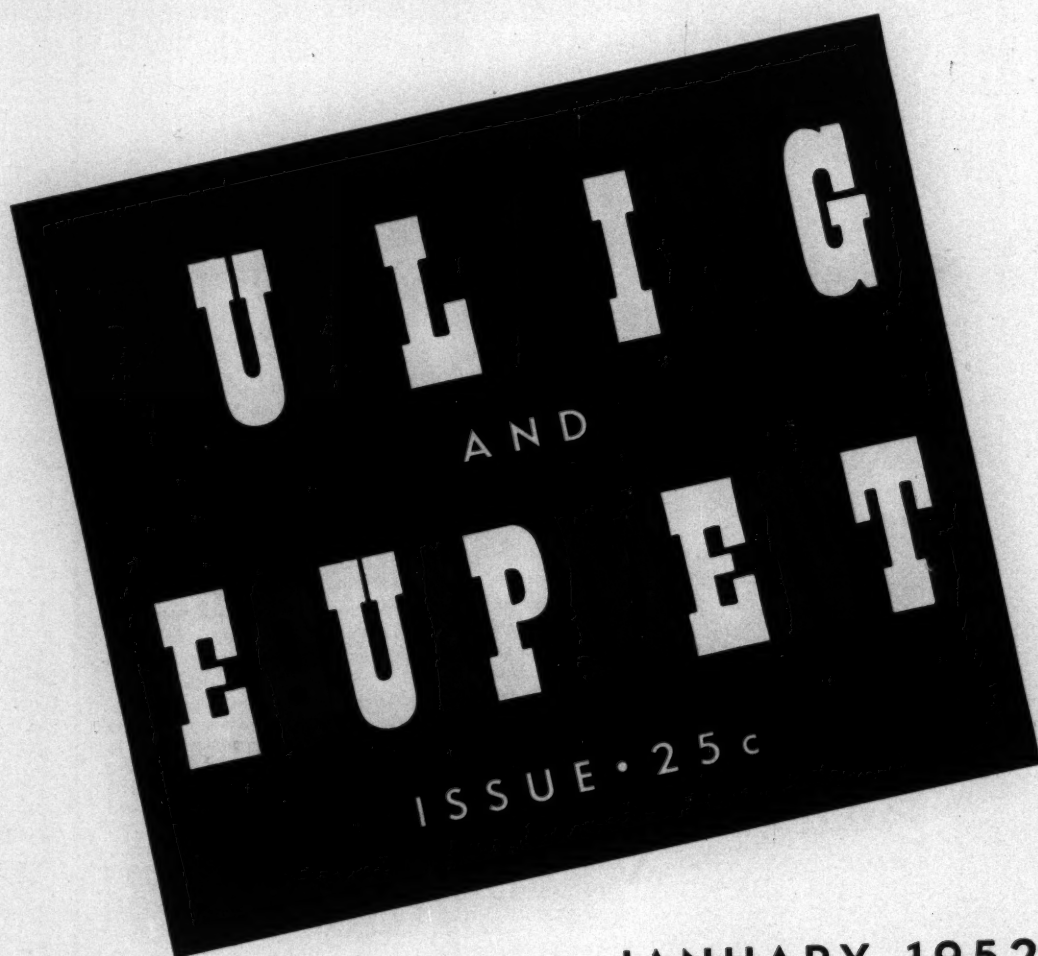


SCHOLASTIC COACH



JANUARY 1952

Riddell

BASEBALL SHOES



By far . . .
the brightest star on the diamond

For outstanding **QUALITY**, **PERFORMANCE** and **DURABILITY**, the **RIDDELL** Baseball Shoe has long been acclaimed the shoe of Champions. The **RIDDELL** Baseball Shoe, of Genuine Goodyear Welt Construction, is built for perfect comfort and longer life.

Baseball Shoes by **RIDDELL** feature . . . a last formed arch for proper foot support . . . a cushioned heel to prevent foot fatigue . . . a durable counter, reducing foot injuries . . . linen stitching which assists in eliminating moisture deterioration . . . a hardened steel spike . . . and flat-head, clincher type rivets which does away with sharp edges inside the shoe.

Model #RB . . . Professional Shoe with Split Spike, Straight Shank and made of genuine Yellowback Kangaroo. Model #SB . . . Companion Shoe to Model #RB, with Split Shank, Standard Spike and made of genuine Yellowback Kangaroo. Model #KB . . . All Purpose Shoe with Straight Shank, Standard Spike and made of the finest Athletic Tan Leather.

For LONGER wear — BETTER wear . . . RIDDELL

famous for:

ATHLETIC SHOES



INFLATED GOODS



SAFETY SUSPENSION HELMETS

1259 N. WOOD ST.

CHICAGO 22, ILL.

One decision that's not close!

● In your book, Spalding Baseball equipment should have the call by a wide margin. You know the big league standing of the "Twins of the Majors"—the only Base Balls ever used in the two Major Leagues. In the National, it's the 75th year for the *Spalding*—in the American, it's the Spalding-made *Reach* for the 50th year.

TWINS OF THE MAJORS

BOTH MADE BY

SPALDING

You know, too, that Spalding playing equipment is "First String" in performance and reputation — on a quality level with the "Twins of the Majors". So, in outfitting your team, make the one smart decision — *buy Spalding!*





Ask
your
dealer
about

Sportcraft

BADMINTON EQUIPMENT

- Longer lasting
For school and
College play

Ask about the
Ken Davidson
line of rackets

ALSO EQUIPMENT FOR

DECK TENNIS

Rings
Complete Sets

SHUFFLEBOARD

Complete Sets
4 Pushers and 8 Discs

TABLE TENNIS

Bats, Nets, Balls
Complete Sets

HAVE YOU TRIED
THE NEW

Timpe
Shuttlecock

Write for free copies of rules, book-
lets for Badminton, Deck Tennis,
Shuffleboard, Table Tennis, Bat Ten-
nis, and the address of your near-
est dealer carrying Sportcraft
Equipment.

GENERAL *Sportcraft* COMPANY

215 Fourth Ave., New York, N. Y.

SCHOLASTIC COACH

Reg. U. S. Pat. Off.

VOLUME 21 • NUMBER 5 • JANUARY

IN THIS ISSUE

HERE BELOW	5
A FABULOUS TRACK by George E. Gauthier	7
THE DOUBLE-DECKER GYM	8
MIAMI'S NEW FIELD HOUSE by E. Hart Morris	10
PRACTICAL GYM LIGHTING by B. D. Levaur	16
MAKE YOUR EQUIPMENT LAST LONGER by Hollis Fait	20
GETTING THE RANGE by Charles L. Russell	24
NEW EQUIPMENT	28, 30
SIZING UP THE TRAMPOLINE by Robert Fenner	32
NEW BOOKS ON THE SPORT SHELF	36
VARIATION ON A BACKBOARD by Carl Rohmann	38
OPEN HOUSE IN THE GYM by C. E. Miller	40
COMBINATION DRYING-STORAGE ROOM by Emil Lamar	44
COACHES' CORNER	50
FOOD AND FITNESS by Dr. Henry F. Donn	54
SO YOU HAVE TO STAGE A MEETING! by Ernest W. Fair	56
BOWLING ON A VARSITY SCALE by Donald Y. Yonker	58

Publisher • G. HERBERT McCracken

Editor • HERMAN L. MASIN

Advertising Manager • OWEN REED

Art Director • MARY JANE DUNTON

SCHOLASTIC COACH IS ISSUED MONTHLY TEN TIMES DURING THE ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) BY SCHOLASTIC CORPORATION, M. R. ROBINSON, PRESIDENT, PUBLISHERS OF SCHOLASTIC MAGAZINES FOR HIGH SCHOOL STUDENTS.

ADDRESS ALL EDITORIAL AND ADVERTISING COMMUNICATIONS AND ALL CORRESPONDENCE CONCERNING SUBSCRIPTIONS AND CIRCULATION TO SCHOLASTIC COACH, 351 FOURTH AVE., NEW YORK 10, N. Y.

SUBSCRIPTION FOR THE UNITED STATES, \$2 A YEAR. CANADA, \$2.25. FOREIGN, \$2.50. BACK ISSUES CURRENT VOLUME, 25c; PREVIOUS VOLUMES, 50c.

THE ENTIRE CONTENTS OF SCHOLASTIC COACH COPYRIGHTED, 1952, BY SCHOLASTIC CORPORATION.

SCHOLASTIC COACH IS A MEMBER OF THE CONTROLLED CIRCULATION AUDIT, A BUREAU FOR EXAMINING AND AUDITING CIRCULATION FIGURES FOR THE PROTECTION OF ADVERTISERS. CCA STATEMENTS OF SCHOLASTIC COACH CIRCULATION SUPPLIED ON REQUEST. THROUGH THIS SERVICE, SCHOLASTIC COACH ADVERTISERS RECEIVE INCONTROVERTIBLE EVIDENCE OF THE CIRCULATION THEY ARE PAYING FOR.

CCA



They'll *Look* Their Best
And *Play* Their Best In...

Rawlings BASEBALL UNIFORMS

*The Finest
In The Field!*

Sure there's a reason why the standout team on any diamond is always dressed in Rawlings Baseball Uniforms. If you want to sum it all up in one simple word, you might say it's due to "Experience"—more than 50 years of it! But there's more—lots more—to it than just that.

Take, for instance, the "know-how" Rawlings tailors have accumulated in outfitting teams all over the country—the majors, minors, colleges, semi-pros and amateurs. These needle experts are masters in the kind of workmanship that produces "action-styled" uniforms which fit right, look right and feel right—who know just where to put the extra stitches and reinforcing to take the strain of long hard drives and arm-stretching action.

Add to that all the things we've learned about fabrics—materials that have that luxury feel but which wear like iron—that hold their shape from the season's first pitch to the season's last out. Even the trim and lettering, which emphasize a necessary dash of showmanship, have that "just right" touch of expert craftsmen.

It's experience, all right—applied experience that keeps Rawlings Uniforms the leader in styling, in tailoring, in materials and in wearability. It's the real reason the best dressed teams, year after year, want Rawlings—"The Finest In The Field!"

*See Your
Rawlings Dealer*

FOR SAMPLES AND SWATCHES

RAWLINGS MANUFACTURING CO.
ST. LOUIS 3, MO.



REGULATION STYLE TO
SPECIAL ORDER UNIFORMS



PROFESSIONAL
UNIFORMS

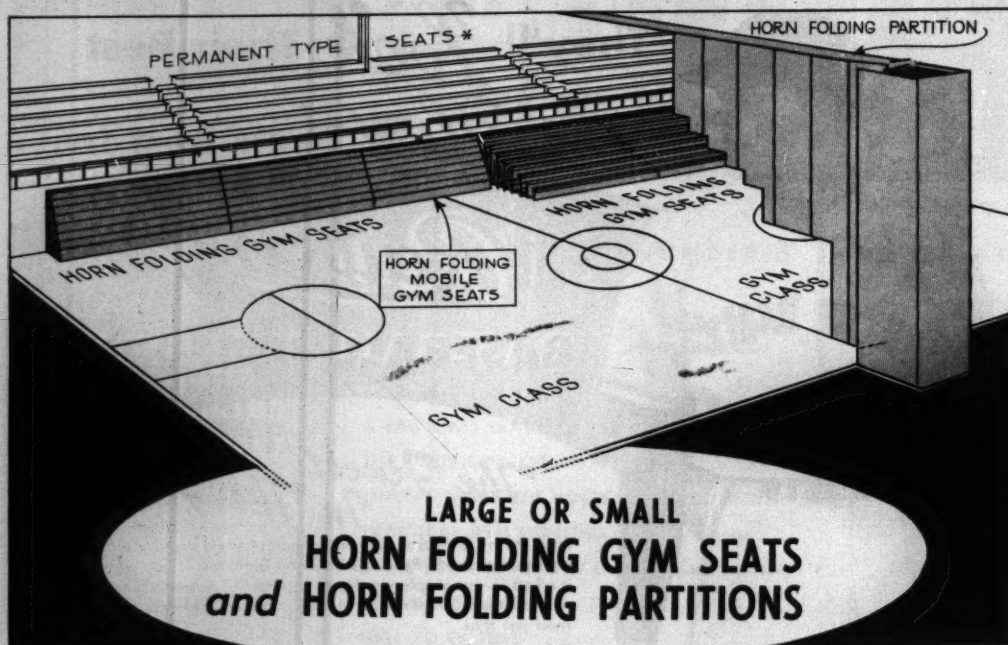


MADE-TO-MEASURE
UNIFORMS



WAREHOUSE
STOCK UNIFORMS
IN STOCK FOR
IMMEDIATE DELIVERY!

ANOTHER FACTORY INSTALLED HORN GYM PLAN!



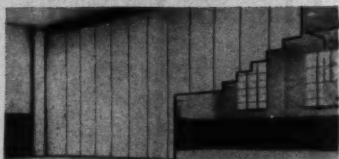
**LARGE OR SMALL
HORN FOLDING GYM SEATS
and HORN FOLDING PARTITIONS**

UTILIZE YOUR GYM SPACE

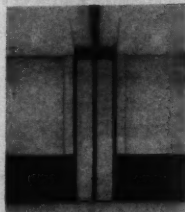
*HORN FOLDING GYM SEATS ARE AVAILABLE FOR BALCONY INSTALLATIONS



SEATS CLOSED



PARTITION OPENING
NOTE "CUTOUT" CONSTRUCTION



PARTITIONS RECESSED

Horn, since 1909, have designed, manufactured and installed folding gym seats and folding partitions engineered to utilize precious gym space. The Horn Gym Plan permits multi-gym operation. With The Gym Seats folded and the Partition "out," the main floor can be divided into separate gymnasiums for multiple use. Whatever your requirements may be, there is a HORN PLAN for you. HORN representatives are located in principal cities from coast to coast.

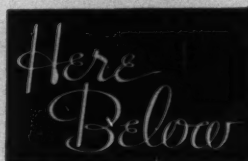
WRITE FOR FREE CATALOGUES

SAVE TIME, LABOR AND SPACE WITH HORN FOLDING GYM STAGES
HORN FOLDING STAGES are available in various sizes to meet your needs. Write for complete details and folder.

HORN, WORLD'S LARGEST MANUFACTURERS OF FOLDING PARTITIONS, FOLDING GYM SEATS AND FOLDING STAGES



HORN BROTHERS COMPANY
FORT DODGE, IOWA



Cleanup time in football

WHEN the movie, *Saturday's Hero*, hit the screens early in September, a lot of football people recoiled in horror at this pretty solid indictment of big-time football.

"Grotesque," "exaggerated," and "cruelly distorted" were some of the epithets hurled at it. Big-time football may have its bad points, alleged the name-callers, but the movie savagely overstated them.

In the midst of this tempest, the 1951 season got underway. It didn't go very far before the aforementioned critics were smitten dumb. All the sore points of big-time football that had been festering for years suddenly came to head and erupted in a series of sickening incidents.

If *Saturday's Hero* needed any vindication, here it was—wrapped up in a gaudy string of episodes involving dirty playing, overemphasis, undercover payments, academic record tampering, and deplorable proselytism—the concomitants of super-commercial football, the very things that the movie attacked.

All this afforded potent ammunition for the anti-sports bloc, coming as it did on the heels of the basketball scandals. Most sports devotees were sickened by the mess. But not us. We were glad it happened. Not because we're against college sports, but because we're so much for them.

Sports represent such a tremendous force for good that we hate to see them fouled up by pernicious practices. We've always felt, however, that it would take something catastrophic to clean 'em up. So long as the sports program moved along serenely, making big money, the dirty laundry would be kept in the hamper.

The ugly incidents tore off the lid, exposing the dirty linen underneath. And now the men of ideals can take over. Moving in an atmosphere conducive to reform, they can set up standards that will clean up

the programs and make them serve the purposes for which they were originally intended.

As you read this, the NCAA will have formulated a new code for the purification of sports. Let's hope it's twice as practical as the old one, that our colleges will pay it twice as much heed, and that it will have twice as many TEETH in it.

With a code such as this, football will again begin stressing the many fine virtues inherent in the game—as exemplified by an incident in the Southwestern College-Central Missouri State game last season.

The score was tied 6-6 when Art Johnson of Southwestern circled end for what appeared to be the winning touchdown. The officials were lining up the ball for the extra point when Harold Hunt, the Southwestern coach, came running onto the field.

To the amazement of the officials, Hunt said that Johnson had stepped out of bounds and insisted that the ball be brought back to the spot where the player had run out!

The officials, who hadn't noticed the infraction, granted the coach his unique request. Southwestern failed to score and the game ended in the 6-6 deadlock.

"I just couldn't see those Missouri boys go home knowing we had won the game on an illegal play," explained Hunt.

WHOSE GAME IS IT?

EVER since coaching became the highly specialized science it now is, our do-gooders have been exploring our schools to "give the game back to the boys."

Personally, we doubt whether "the boys" ever owned it. But that isn't the question. The real question is: "Whose game is it?" And in this respect we'd like to quote from an uncommonly fine editorial by M. F. Sprunger in *The Illinois Interscholastic*:

"We're sure the game doesn't belong entirely to the coach, even though he admittedly gains or loses by its outcome. We're just as sure that it doesn't belong entirely to alumni or the rabid fans, except as it should provide them with wholesome interest and recreation. It doesn't belong entirely to the school authorities, either, even though they are charged with the responsibility of its administration.

"That leaves only Junior and his teammates. But lest Junior get a swelled ego, he ought to realize that without a coach's supervision the game would be a rout; without the community's support and interest it would be difficult to provide for the material needs of an athletic program; without school administrative responsibility, it would be an unorganized shambles.

"The game cannot be entirely of and by Junior, but if his dad wants to remain proud of his boy and the game in which he plays, it must be for Junior. Any other way of looking at it is unsound from any and all possible viewpoints."

Talking about "whose game it is," we'd like to quote Nat Holman's view on the subject, insofar as it relates to basketball. In a recent article in *Sport Magazine*, Nat claims that "the responsible authorities of big-time basketball have failed in their duty. They have allowed the game to fall into the hands of the boys."

The City College coach then goes on to say that "There has been recruiting without conscience. Boys have been bought, subsidized, catered to, pampered. They have been invited to tap the till. . . . Then they turn around and sell out. The thinking of the boys must be reshaped."

Obviously, the City College coach doesn't believe in giving the game back to the boys. When you do that, he insinuates, the boys sell out. But in the same breath, he indicates that the original sin lies in buying, subsidizing, pampering, etc.

And, pray, Mr. Coach, who are the perpetrators of these things—the boys or the recruiters?



uniform

Wilson

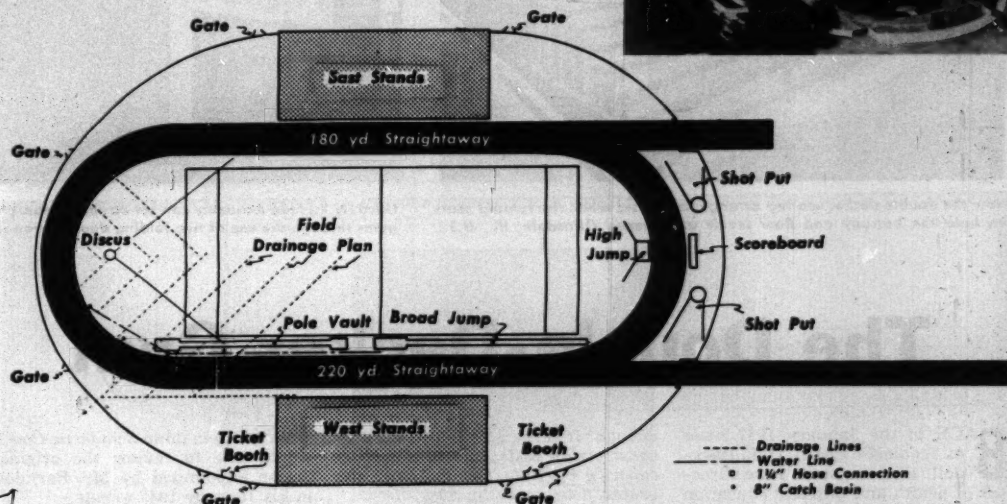
This famous label is your assurance

Yes, you can bank on the Wilson label—for finest quality *materials*, for long, hard wear; skilful tailoring for the best in fit, comfort and smart appearance. Baseball uniforms made by Wilson are preferred by leading major and minor league teams, and by colleges and schools everywhere. Available in a wide choice of newest materials and colors. The best value your money can buy today . . . and, the uniforms for you in fifty-two.

IT'S Wilson
TODAY IN SPORTS EQUIPMENT

WILSON SPORTING GOODS CO., CHICAGO
Branch offices in New York, San Francisco and 26 other principal cities
(A subsidiary of Wilson & Co., Inc.)

OHIO WESLEYAN UNIVERSITY SELBY STADIUM



A Fabulous Track!

By **GEORGE E. GAUTHIER**

Athletic Director, Ohio Wesleyan University

ONLY once in a lifetime—and then only if he's lucky—does a track coach get the chance to build the kind of track he's always dreaming about. My turn came in 1928 when I had the pleasure to plan and supervise the building of a small college stadium for football and track.

Being a graduate civil engineer from Michigan State, I had always been interested in the design and functional construction of athletic plants and equipment. And having coached football and track for 14 years at Michigan State and then Ohio Wesleyan, I had some very definite ideas about the construction of a plant for these sports.

I was determined that the grid-iron and the runways and pits would not only encourage record-breaking performances but would lend themselves to easy maintenance.

Since all construction projects start with underground drainage, this was the first consideration at Selby Field. The topography proved uneven, and during the grading to

level we discovered that artesian springs had flowed from this ground and that it had been used as a cemetery by the early Ohio settlers. This intensified the problem of underground drainage.

It was finally decided to install 10-inch main drains at a depth of four feet just in front of the inside line of the concrete stands to serve as main lines for the field drainage system. The field drains were installed every 30 feet at a 45° angle to the main lines, extending from the main lines to the center of the field.

These field lines were of six-inch field tile, with catch basins in each to take off the surface water at the inside of the track curb. All drain tile was then covered with crushed rock to within 10 inches of the top surface. The average depth of tile was 18 inches under the surface.

The football field was graded with a surface slope of 14 inches from the center of the field to the curb line for surface drainage. One-inch water lines were installed around the inside of the curb with surface

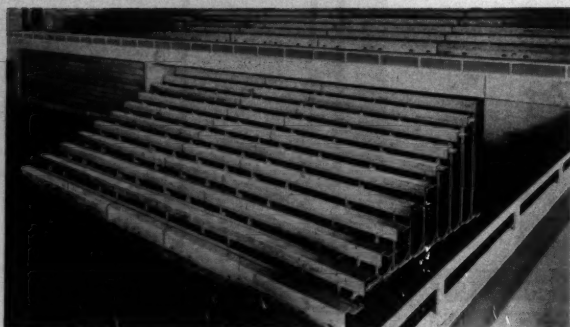
outlets every 100 feet in flush boxes.

Concrete stands were built on each side of the field between the 20-yard lines, with 40 rows of seats and two rows of boxes in front. These seats approximately 10,000 people. Concrete dugouts were installed in front of the stands with concrete roof and seats ten inches above ground level. A large press box, seating 90, was enclosed at the top of the stand and equipped with electric, telephone, and gas outlets.

Team rooms, storage, training rooms, heating, showers, and toilet facilities were built in under the stands; and during the past war, dormitories for men were built above the team rooms. These now house 100 students, with rooms for kitchen, dining room, and other facilities.

A study of track and runway construction showed that the life of tracks and runways is dependent on the foundation and drainage along with the type of materials used.

Hence, our track and runways
(Continued on page 61)



How the double-decker seating arrangement looks when the folding seats on both the balcony and floor levels are opened (Hinsdale, Ill., H.S.).



Utica (N.Y.) Free Academy can set up three separate gyms through the use of two folding doors (arrows).

The Double-Decker Gym

BACK in the January 1947 issue of *Scholastic Coach*, O. R. Barkdoll, then assistant state director of health and physical education in Illinois, blue-printed a model type of gymnasium consisting of a main floor and a balcony which, thanks to folding partitions and a unique arrangement of folding bleachers, offered a perfect solution to the problem of large classes and extensive spectator accommodation.

Since this article appeared in print, Mr. Barkdoll has been peppered with further-information queries from all over the U.S. More than 30 schools have told him that his two-level gym plan is the greatest idea to have come along in years.

Actually, however, it is now more than an idea. It has become one of the guiding principles in gym construction. The reason is simple

enough. It saves \$20,000 or more in construction costs, increases seating capacity by 40%, and increases the usable floor space by 60%.

The new Hinsdale (Ill.) High School "palace" and the new Juniata College gym in Huntingdon, Pa.—both of which are shown in the accompanying pictures—offer classic examples of how Mr. Barkdoll's idea has been realized. Juniata College, in fact, has informed Mr. Barkdoll that they got the idea for their new plant from his article in *Scholastic Coach*.

Inasmuch as coaches, physical education teachers, and school boards are constantly changing, and new board members don't know what to ask for unless they have teachers who keep up with their professional reading, the double-decker gym plan needs continual promotion.

With this in mind *Scholastic Coach* would like to review the original design expounded by Mr. Barkdoll in his January 1947 article.

The basic idea is to build the gym on two levels—a main floor and a balcony, or mezzanine. As you may see in the accompanying plan, this idea affords several substantial advantages.

1. By installing folding bleachers on both levels, you can nearly double your seating capacity.

2. When the folding bleachers are recessed, the usable floor space is increased by more than half.

3. By installing folding partitions from the girder to the guard rail of the balcony, you can get three gyms in one—a main floor gym plus two narrower balcony gyms, thus permitting classes for both boys and girls at the same time. Though the upstairs gyms may be rather narrow for basketball, they are highly useful for practice purposes for grade-school teams.

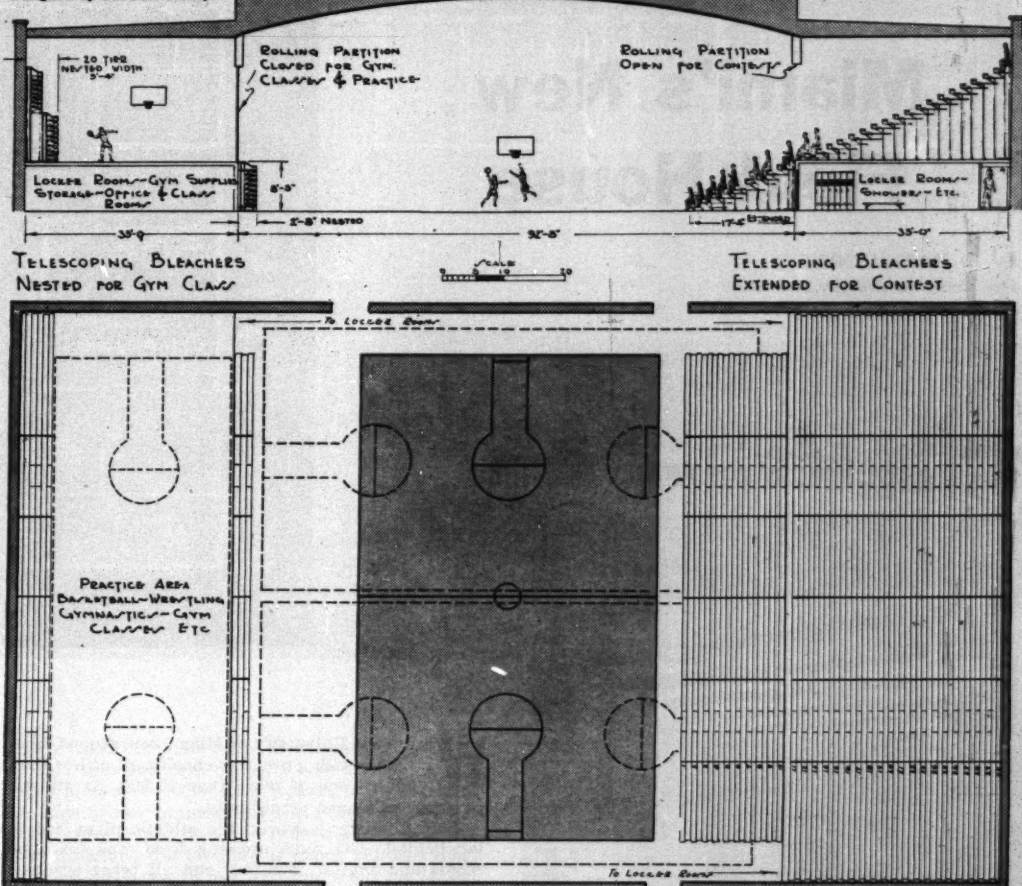
Many modern high schools with unusually large gym floor space are getting the same two-in-one or three-in-one gym effect with folding partitions which bisect the floor proper. At Hinsdale, for example, an automatic folding partition can be drawn down the center of the floor, creating a distinct boys' gym and a girls' gym. When the partition is opened, you have a vast playing arena and gallery.

In the model plan under consideration, 10 rows of folding bleachers are laid down on the playing floor and another set of folding bleachers are installed on the balcony level



The two-level Hinsdale (Ill.) H. S. palace with the folding partition half open.

Designed by Fred H. Corray



(which is built about 10 feet up from the playing floor, just above the last row of folding bleachers).

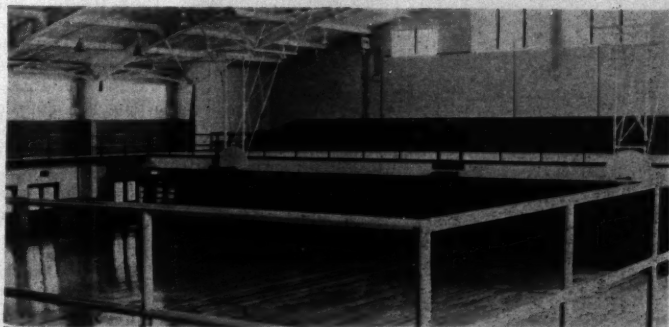
Too many schools install permanent seats in their balconies. This is a mistake. Permanent bleachers make the balconies usable for just one purpose—sitting. Folding bleachers make them usable for two purposes—sitting and activity.

If the balcony is extended to the ends of the basketball court—in other words, completely encircling the gym—not only can the seating capacity be increased, but the mezzanine level may now serve as an indoor running track all around the gym!

Many school architects believe that horizontal floor space, vertical walls, and folding bleachers will cost a smaller total amount per seat

(Concluded on page 48)

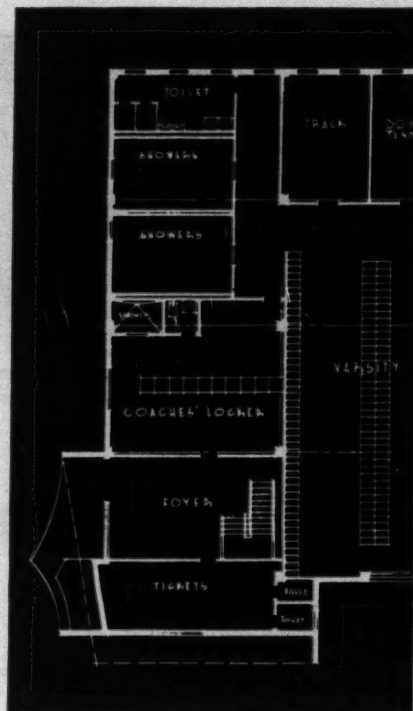
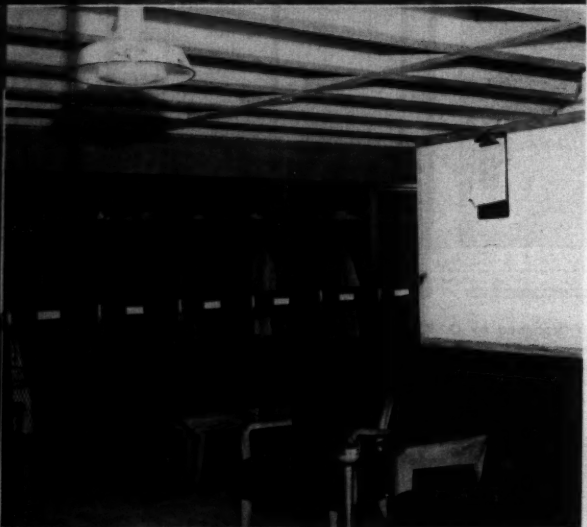
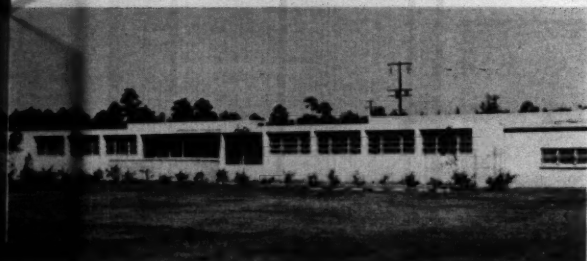
This is the original plan broached by O. R. Barkdoll in the January 1947 issue of *Scholastic Coach* that gave tremendous impetus to the double-decker motif in gym construction. Juniata College's new gym was blueprinted from this very plan!



At Juniata College, the mezzanine completely encircles the gym floor proper.

Miami's New Field House

By E. HART MORRIS
Line Coach, University of Miami



WHEN the University of Miami burgeoned from a school with a pre-war enrollment of less than 2,000 to one of more than 11,000, its athletic program expanded accordingly.

Unfortunately, however, the athletic plant had to lag behind. The most pressing need was for class rooms and similar facilities, and all other adjuncts had to wait.

It wasn't until the past summer that the athletic plant finally caught up. A new, resplendent \$80,000 field house furnished the answer to all our facility problems. An ultra modern structure incorporating the ideas of both coaches and players, it boasts dressing, training, and equipment storage facilities second to none.

Funds for the first unit of our project became available in the summer of 1950, and we promptly began building. Before this unit could be completed, however, additional funds became available and this enabled us to build our entire ground floor as planned.

Future plans call for a second floor level, but we still don't know exactly when this will be undertaken.

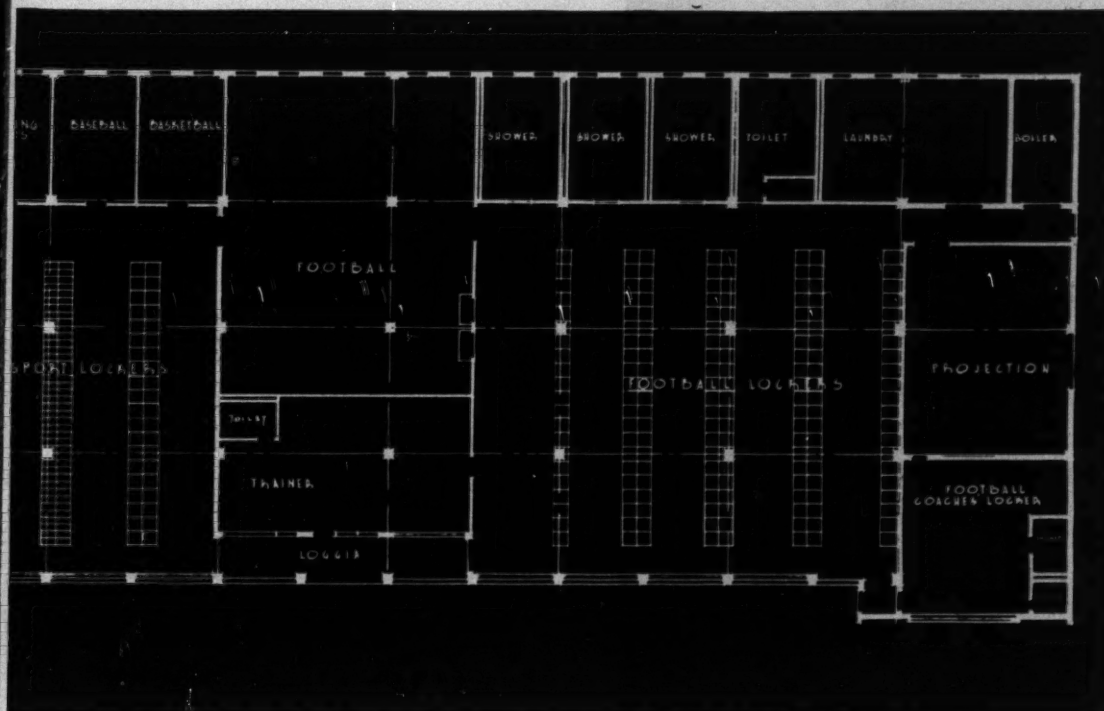
Meanwhile, we're getting full use out of our "dream house." Though buildings which house locker and

Upper left: Exterior view of Miami's new plant.

Center left: A section of the coaches' lounge showing some of the big, roomy lockers.

Lower left: The projection room equipped with drop-arm desk chairs.

SCHOLASTIC COACH



shower room facilities are seldom pretty to look at, we feel that our field house is both utilitarian and highly attractive. Its location is ideal. It is situated at the edge of our running track and football practice fields, just a line drive away from the baseball field.

As it stands, the building is about 121 feet long, with one unit being 78 feet wide and the other 72 feet wide. It is of concrete block-stucco construction with cement floors throughout.

The east side of the field house was the first to go up, and is strictly a football unit. It houses three shower rooms and a dressing room for the squad, a training room, a spacious equipment room, a coaches' dressing room, and a temporary projection room.

The coaches' locker room is located in the southeast corner, and is 22 by 22 feet. It is equipped with 12 lockers, a shower room, toilets, and a lounge furnished with a blackboard and easy chairs.

North of the coaches' locker room is the temporary projection room. This area is 30 feet 4 inches by 23 feet 4 inches, and will eventually be converted into an equipment storage room. The permanent projection room is part of the upstairs plans, but until the second floor is completed the originally designed storage area will continue to serve as a projection room.

This room has been equipped with 50 arm chairs

Right: Football lockers showing shelf for headgear and books, the rack for jerseys and coats, and the galvanized hooks lower down for shoulder pads and similar gear.





a pictorial tour of the

with drop-table attachments for the viewing of football game pictures and for lectures. A window air conditioner takes care of the ventilation.

In the northeast corner are a boiler room and a laundry, 18 feet by 26 feet 1 inch. These haven't been put into operation as yet, and are currently being used for storage and miscellaneous offices.

West of the coaches' room on the south side is the football locker room. This 54 by 60 foot area features 162 lockers, 2 x 2 x 72, mounted on four-inch high concrete pedestals. The cement platform facilitates sweeping and cleaning.

The unusually large lockers are of the galvanized mesh wire type. A shelf 12 inches from the top accommodates books and helmets, while a coat rod 8 inches below is equipped with plastic hangers for jerseys and personal clothes.

Six galvanized hooks 3 feet from the bottom of the locker afford ample room for hanging shoulder and hip pads and other gear.

As you can see, the arrangement of the shelves, rods, hangers, and hooks permits the air to circulate freely throughout the full length of the locker, reaching every part of the uniform. The room is ventilated by five 36-inch exhaust fans to further facilitate drying.

Eight feet of aisle space prevents the athletes from falling over one another while wrestling out of shoulder pads and such.

The shower section is located along the north side opposite the locker room, and possesses several

(Concluded on page 57)



outstanding units

THE ILLUSTRATIONS

No. 1: Typical shower stall featuring the high type of shower-heads. Note the built-in soap rack on the wall and the low center foot-rest which facilitates the washing of ankles and feet.

No. 2: Porter delivering equipment with a specially designed cart consisting of an upper compartment for socks, helmets, and similar supplies, and a lower compartment for jerseys.

No. 3: Trainer Wikes at his taping bench. Benches are specially adapted to Wike's height, while troughs make taping materials easily accessible.

No. 4: Shelving for storage of football gear.

No. 5: Looking into gear room from locker room (football). Bins and shelves contain practice and game gear, arranged by numbers and sizes.

No. 6: Section of the training room showing the infra-red lamps in action.

No. 7: Wike's novel ice-making machine is shown in center; manufactures ice overnight.

No. 8: Showing both the 12 x 24 x 72 inch lockers used for basketball, track and boxing, and the 2 x 2 x 72 inch lockers used for baseball.

No. 9: Entrances to equipment rooms for baseball, basketball, track, and boxing; hallway leads into the football unit.

No. 10: The unique portable football helmet rack; helmets are suspended from poles which are clamped to rack for easy access.



SEE the great new
MacGregor
GoldSmith **FOOTBALL EQUIPMENT**
for 1952



TRADEMARK REG.
U.S. AND FOREIGN COUNTRIES

MacGREGOR GOLDSMITH, Inc.

"Scores in every field of sport"

CINCINNATI • NEW YORK • CHICAGO • LOS ANGELES



MACGREGOR GOLDSMITH representatives are on their way with a great line of 1952 football equipment. It's new—it's improved! They'll put on a show to knock your eyes out! They'll show you equipment that excells anything you've ever seen before . . . Plan now to see the new 1952 MacGregor Goldsmith Football and Basketball Equipment—
"The Choice of Those Who Play the Game."





The 45-footcandle installation in the Wilkes College (Wilkes-Barre, Pa.) gym obtained by use of 68 incandescent units.

Practical Gym Lighting

By B. D. LEVAUR

TREATISES on gymnasium lighting cannot be circumscribed by convention. The factors that apply to the problem go well beyond the considerations involved in normal lighting. The thing to remember about gym lighting is that it must be tailored to the uses to which the area will be put. This is as true of the small elementary school as it is of the university with a nationally famous basketball team.

Just as the gym must be adaptable to a wide variety of uses, so must the lighting system possess a flexibility to meet the various demands placed on it. Let's take a look at some typical gymnasiums and see what the lighting requirements are:

In small elementary schools, the gym is usually put to three uses—gym classes, student body meetings (where no auditorium is available), and social functions such as dances and P.T.A. meetings.

In high schools, particularly the larger schools, the gym is again subjected to three basic uses—spectator sports, regular gym class activities, and social functions.

On the large university level, where more meeting places are available, the gym is generally restricted to physical education and varsity sport activities.

The illumination problem is more complicated on this level. Besides furnishing lighting for normal purposes, the installation must fre-

quently provide adequate illumination for televising events.

However, no matter what type of school building or what type of gymnasium is under consideration, several basic illumination principles apply to all.

First, it is imperative that the lighting system provide well-distributed illumination for reasonable uniformity;

Second, the lighting system must be designed to minimize direct glare, since both participants and spectators spend considerable time looking upwards;

Third, the ceiling must be rela-

tively bright, since it's easier to see a ball or other moving object against a light background;

Fourth, the equipment must be accessible for maintenance.

Modern gymnasium construction is tending toward the flat ceiling, which is ideal for recessing incandescent equipment. Other buildings employ either flat or arched roofs, with the trusses exposed. In this case, it is necessary to use housed units.

Whatever the installation, it's always essential to employ equipment with the highest possible efficiency, such as mirrored-glass reflectors, in order to make certain that the illumination coming from the light source is actually being put down on the playing floor where it is needed.

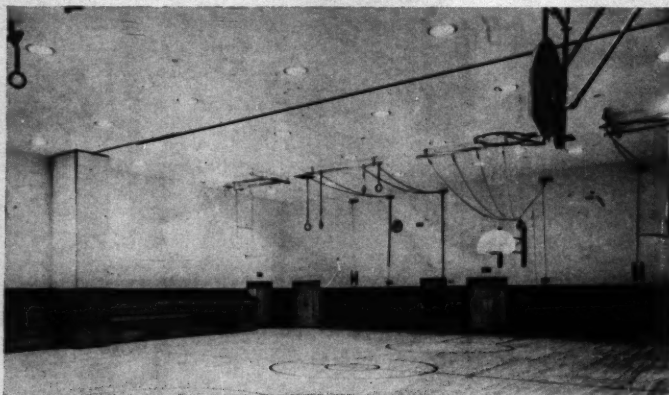
Summing up, then: To design a lighting system for a specific gymnasium, it is necessary to determine the uses to which the room will be put, and then to follow a few simple rules of thumb.

It has been demonstrated that almost every gym will require three levels of illumination.

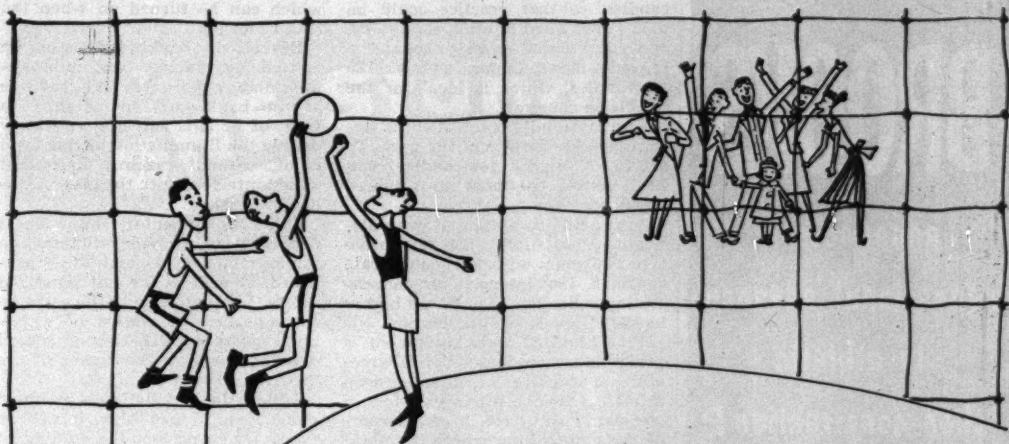
The elementary school gym might need five to 10 footcandles for the weekly dancing class, and certainly no more than 20 footcandles for any other conceivable use.

The high school which holds a mid-year prom one week and a district basketball championship the next, would need a flexible lighting system which could provide a minimum of 10 footcandles and a maximum of 50.

The large university, however, might want a minimum of 50 foot-



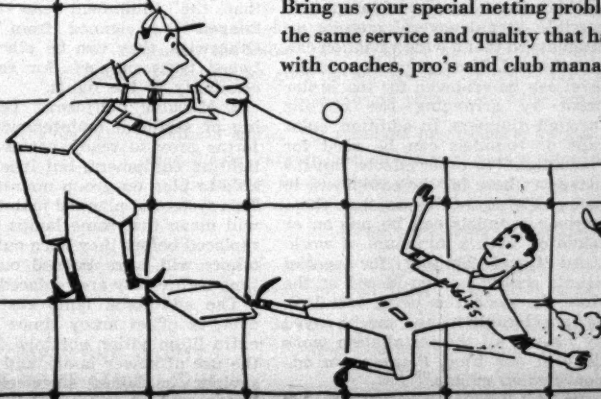
The 40-footcandle installation in the Goodrich School gym in Uniondale, N. Y.



*There's a net for every purpose
...and a purpose for every net!*

Gold Medal makes nets for every possible sporting use—quality nets specially designed to give maximum service in the field for which they're intended. We won't sell just any netting cut down to size. Each net has to be built to meet either official or the special requirements of its application.

Bring us your special netting problems. Large or small, you'll get the same service and quality that has made Gold Medal Nets tops with coaches, pro's and club managers everywhere.



Makers of fine nettings
for 110 years

Gold Medal Nets
THE LINEN THREAD CO., INC.
418 GRAND STREET, PATERSON 1, N. J.
New York 17, N. Y. Baltimore 3, Md. Boston 10, Mass. Chicago 10, Ill. San Francisco 5, Cal. Gloucester, Mass.



BROOKS

announces a
sensational advance
in athletic
shoe construction!

BROOKS-TEX*

gives athletic shoes these
great new features...

**WILL NOT STRETCH
OUT OF SHAPE**

**GLOVE-LIKE FIT FOR
THE LIFE OF THE SHOE**

**UNUSUALLY HIGH
WATER RESISTANCE**

Write for new booklet on
"Brooks-Tex"—today!

BROOKS

SHOE MANUFACTURING CO.

"Makers of the
Finest in Athletic Footwear"

58th & Market Sts., Phila. 39, Pa.

*TM reg. and pat. pending

See Brooks "BT" models,
with "Brooks-Tex" construc-
tion, at the American Foot-
ball Coaches Assn. Meeting!

candles, so that practice could be held under ideal lighting conditions, and the actual games could be played under approximately 125 footcandles, which is ideal for the television cameras.

The footcandle level, then, is determined by the use of the gym. To arrive at higher footcandles, you need merely use more units spaced closer together.

In general, to obtain an even distribution of light, use extensive type reflectors with fairly moderate spacings. Use intensive or concentrating reflectors to build up higher localized levels of illumination.

Five hundred watt equipment is preferable, since larger light sources will cause glare which only deep shielding (which produces a loss in efficiency) can cure. In the corners of the gymnasium, where illumination levels will fall off, 750-watt lamps may be used.

After deciding on spacings and calculating maximum footcandle levels, you may figure out circuiting arrangements which will provide control that will enable you to use lower footcandle intensities with satisfactory distribution when the occasion arises.

It's the circuiting which provides the flexibility to the system, and proper planning will produce good results for either a two-level or three-level system.

In addition to controlling the general illumination by means of various circuits or groups of lamps, it's possible to put several circuits on dimmers so that a wide variation can be achieved. Thus, a five-footcandle level can be achieved for the junior prom by arranging the circuits through dimmers. In addition, color caps or roundels can be used for "moonlight" or other effects. But it's necessary here for the equipment to be readily accessible so that these caps or roundels can be put on or taken off with a minimum of work.

Additional lighting for special events should be considered at the time the system is being installed, as considerable money can be saved by having all the installation work done at one time. *Planning in advance saves money.*

Special lighting is usually needed for boxing and wrestling arenas, and for basketball bankboards. If considerable use is to be made of a ring, thought should be given to designing a platform containing a bank of lights which can be lowered into position for boxing or wrestling events.

For standard use, however, it will suffice to provide four or eight additional standard units over the center of the floor, on a separate circuit,

which can be turned on when the ring is set up.

Basketball bankboards can be lighted by placing two units approximately three feet on either side of the bankboard and slightly in front of it. This will approximately double the illumination at this focal point, without causing glare that would interfere with the players under the basket.

Other supplementary equipment is necessary to provide illumination for spectator areas and the score-board, as well as for exit signs and safety lighting. The latter can be accomplished by means of a few units on a special circuit, placed over exits and in the center of the floor.

Unless the installation is mounted more than 25 feet high, it will be necessary to protect the equipment against damage from balls. Wire guards or louvers will protect the lamps, while a housing will protect the reflector, if it is exposed.

PLANNING OF MAINTENANCE

Maintenance must be planned along with the installation, so that the lighting equipment can be relamped and cleaned with a minimum of effort. There are three general methods of maintaining lighting equipment in high-bay installations such as gymnasiums:

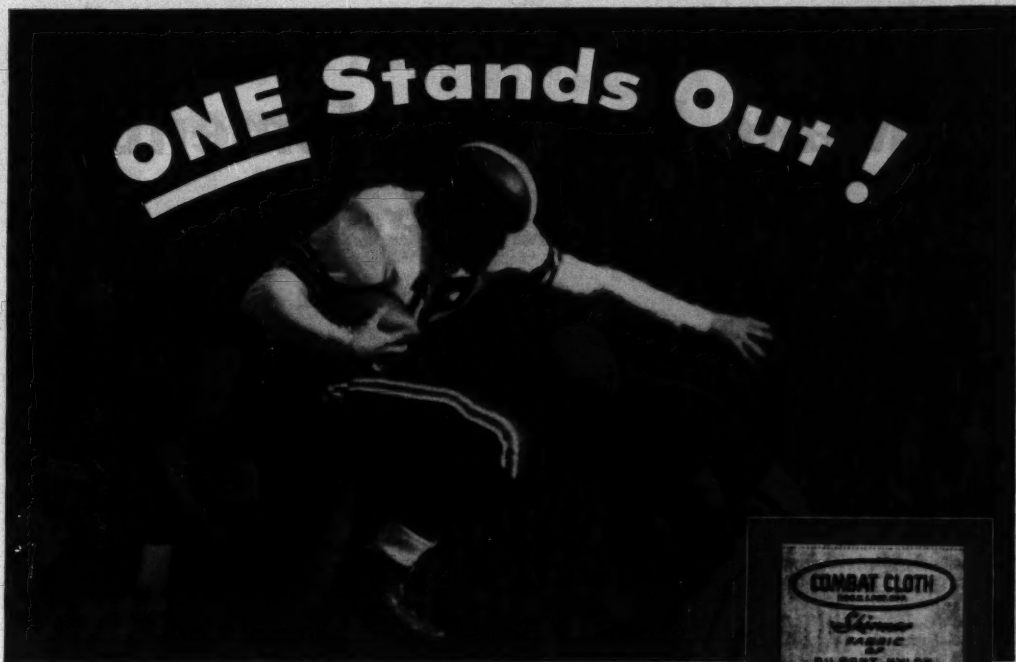
1. *Catwalks:* These can be provided inside an enclosed ceiling, so that the equipment can be relamped and cleaned from above. Otherwise, they can be placed between truss supports for easy accessibility to the lights.

2. *Movable platforms:* Telescoping or sectional maintenance platforms provide ready access to the lighting equipment, but it is advisable to plan on group maintenance. This system of planned maintenance will mean that some lamps will be replaced before they burn out, while others will have burned out some time before they are replaced.

The additional lamp cost, however, is offset many times by the extra illumination obtained through the use of newer lamps and by the savings in labor, since changing lamps and cleaning fixtures after every burn-out entails frequent use of the movable platform and considerable labor time.

3. *Mechanical lowering devices:* The use of disconnecting hangers enables you to lower the units to the floor for maintenance. This method, if properly designed and installed, gives ready access to the equipment at all times and provides a method of replacing burn-outs as quickly as they occur.

ONE Stands Out!



LOOKS LIKE A CHAMPION ... ACTS LIKE A CHAMPION!

When the chips are down, he takes charge. By common consent the leader, he's the spark who sets the team afire. Brilliantly dependable, he gives the performance the crowd came to see — in Spring practice or Fall's big game.

It's the same in uniform fabrics. For stand-out performance, for stand-out value, it's the Skinner label all the way! Season after season, this famous fabric stands up longer under rugged play, under repeated cleanings. Holds shape and color. Keeps costs down — team spirit up!

So remember to specify uniforms of Skinner fabric when you outfit your team for Fall. Look for the label, to be sure.

Be sure to visit our exhibit at the American Football Coaches' Convention, Netherlands Plaza Hotel, Cincinnati, Ohio, January 9th thru 11th.

FOR COMPETITIVE SPORTS ...
ONE NAME STANDS OUT

Skinner

FABRICS

WILLIAM SKINNER & SONS,
NEW YORK 3, NEW YORK
©T. M. Reg. U. S. Pat. Off.



Skinner Combat Cloth* Lightest, strongest of Skinner athletic fabrics. Fast color, all nylon fabric. Absorbs little moisture. Dries quickly.



Skinner Tackle Twill* Color and flash, with special staining for the toughest wear. Vat dyed, fast color, water repellent rayon and cotton.



Skinner "8217" The standard favorite for basketball trunks and warm-up jackets. High lustre, vat dyed, fast color, rayon face, cotton back satin.

Make Your Equipment Last Longer!

By HOLLIS FAIT

Physical Education Director, Arkansas A. & M. College

TAKING the best possible care of the equipment can prove to be the greatest single money-saver in the athletic budget. A well-organized program for the care of equipment will pay off in increased longevity of balls, bats, and rackets and in fewer replacements of jerseys, sox, and towels.

The result: Money saved, which can be allocated to the purchase of more sports equipment.

A well-organized program for the care of athletic equipment should follow this general pattern: (1) An adequate room for the storage of equipment; (2) a good marking system; (3) efficient issuance of equipment; (4) proper care of equipment; (5) a positive program for educating the students to respect and care for the equipment.

EQUIPMENT ROOM

The equipment room should be an area which can be shut off from general use. It must be well-ventilated and well-locked. If the school does not have such a room, it might convert a storage room. Or a section of the dressing room or of a nearby classroom could be partitioned off with caging wire to provide an adequate equipment room.

The entrance door to the equipment room is often cut in half to allow the upper section to swing open while equipment is being issued. Such a door is functional, but doesn't always prevent students from swinging open the bottom section and helping themselves.

To prevent this, put in a small window through which to issue the equipment. If outside windows are easily accessible, these should be barred to discourage thieves.

MARKING EQUIPMENT

The name or initials of the school should appear on all athletic uni-

forms and gear. Stenciling is the most economical method. All items of one type should be numbered consecutively.

The size (or designation of small, medium, or large) should be labeled on the garments. For example, a pair of warm-up pants, size 28 and the first to be numbered, would be stenciled with "1-28." The second pair, size 30, would become "2-30" and so on.

To better enable the coach or director to tell how old the equipment is, it is well to mark the year of purchase on the equipment.

All equipment purchased prior to the time of marking for which the purchase date is not known may be marked with some code number such as "P-51" (prior to 1951). The marking on the size 28 pants mentioned above might then become "1-28-51," if it was purchased last year, or "1-28-P51" if the purchase date was not known.

Balls, bats, rackets, and equipment of similar nature should be numbered consecutively. The year of purchase or the code number described above should also appear on the equipment.

CHECKING OUT EQUIPMENT

Much equipment is lost or misused because of a poor "check out" system. The "No Admission" sign on the equipment room should mean that no one except specifically appointed personnel is allowed in the room at any time.

Responsible students can be appointed for checking out varsity equipment. Other students might be given letters or awards for issuing equipment to physical education classes.

Sheets listing the description of the article, as described in "Marking," can be easily prepared. Equipment room personnel can then jot down names opposite the item issued

and check as it is turned in. Any article that is damaged or lost can then be traced to the responsible party.

It is a wise, effective practice to compel students who damage or lose equipment to make restitution or be denied further use of said equipment. A student who has to miss his turn at bat because he lost a bat during a previous session would not be likely to lose other equipment.

CARE OF EQUIPMENT

Leather Goods

Cleanliness is the first order in the preservation of leather goods. Leather can be cleaned with a special type of commercial cleaner and preservative or with saddle soap. If these aren't available, soap and a damp cloth may be used followed by a thin coating of wax for inflated balls and neats-foot oil for other leather goods such as shoes, mitts, and gloves.

Leather inflated balls should be cleaned and treated after each use. All other leather equipment should be cleaned after use and should be treated at least once a month.

Balls should never be over-inflated, as this will cause them to lose shape and resiliency. The amount of required pressure will be stamped on all new balls. As an added precaution, a card indicating the correct pressure for each type of ball might be posted over the pump.

Volley balls and soccer balls should be clearly labeled to avoid inflation errors, since soccers require a higher air pressure. Labeling will also help prevent the misuse of the volley ball as a soccer ball.

Since excess pressure will damage the ball, guesswork can be dangerous. Balls should be filled with a hand pump which shows the pressure in the ball between strokes. It is a good practice to allow only persons who have been fully instructed in

for fieldhouse floor
or community gym

Choose..



SEAL·O·SAN®



UNIVERSITY OF WISCONSIN

WHAT'S behind the product that has built this reputation? Research and "know-how!" Through the years, Huntington Laboratories has developed and tested the finest ingredients; then put them together under careful laboratory control according to a proved formula. The results are a superior product for you. Seal-O-San on your floor is the best investment you can make. If you haven't already discovered 'Seal-O-San don't delay longer. Order a trial supply today.

HUNTINGTON LABORATORIES, INC.

Huntington
Indiana



Toronto
Canada



Proved Tops...
across the nation

**Because SEAL-O-SAN FINISH
WEARS LONGER than Ordinary Sealers**

THERE'S a reason for Seal-O-San's great popularity among coaches, players and other school men. They have learned by experience that Seal-O-San assures a better playing surface, and, yet saves money on application, maintenance and refinishing. To say why it's been popular for nearly 25 years, is just that simple. And that's why schools like the University of Wisconsin and communities like Holdrege, Nebraska, select Seal-O-San for their floor finishing year after year.



CITY AUDITORIUM, HOLDREGE, NEB.

1952 BASKETBALL COACHES DIGEST

- ☐ Tell us more about Seal-O-San.
 - ☐ Please send _____ gallons of Seal-O-San.
 - ☐ Send copy of 1952 Basketball Coaches Digest.
- Free to coaches; all others send 50c handling fee.

NAME _____
COACH AT _____
ADDRESS _____
CITY _____ State _____

MATE 'EM FAST

with Wigwam Socks

THE SIZES GO BY THE COLOR IN THE TOE

SOCK SIZE	THREAD COLOR
9	BLACK
10	GREEN
11	RED
12	BLUE
13	ORANGE

There's a fast color COLORED THREAD knit into the toe of the three Wigwam Athletic Socks most popular with schools — and what a time and temper-saving feature!

After laundering, comfortable Wigwams are ready to be issued in a hurry — with all the speed with which you tell white from green, and red from blue!

Ask for Nos. 610, 620, 632, and 637.

Wigwam Socks

FOR EVERY SPORT

Hand Knit Hosiery Co.
Sheboygan, Wis.

proper filling to perform this job. The pump could be kept in the equipment room where it would not be available to just anyone.

When inserting the needle for filling a ball, the needle should first be moistened with glycerine. Wetting the needle with saliva is an unsanitary procedure and will cause the needle to rust, which in turn may cause damage to the rubber valve of the ball.

Proper drying of leather goods which have become wet may mean the difference between a stiff, harsh piece of equipment which grows old before its time and a piece which returns to normalcy without undue shortening of its life.

When leather goods become wet, they should be dried as soon as possible at room temperature. Leather should never be forced dry. It should, of course, be thoroughly cleaned. After the leather is dried, neats-foot oil should be applied to keep the leather from becoming harsh and hard.

The oil can be applied with a cloth. However, when much oiling is to be done, it is more convenient to pour the oil into wide-mouthed jars and apply it with small paint brushes.

Shoes and gloves should be worked into normal shape before being allowed to dry. Balls should be inflated to normal pressure while drying.

Before being stored, balls should be partially inflated to hold normal shape. They should not be folded or crushed.

Boxing gloves should be periodically treated with carbolic acid to keep them free from bacteria which might carry infection to the boxers. In storing, the gloves should be hung from their laces.

Wooden Equipment

Heat is the enemy of wood. It's therefore important to keep wooden equipment away from excessive amounts of heat. Once a week, all wooden articles should be wiped with a cloth soaked in linseed oil.

Whenever the varnish cracks or peels, the unprotected wood rapidly absorbs or loses moisture (depending upon the humidity), causing it to crack. For this reason, it is important to keep all wooden equipment well-varnished. This includes bats, vaulting poles, rackets, javelins, discs, cues, and sticks.

All wooden equipment that is long and has a heavy end, such as a tennis racket or shuffleboard cue, should be hung vertically with the heavy end downward. A couple of feet of garden hose tacked vertically to the wall will provide an excellent holder for the javelin. Rackets should al-

ways be stored in presses, never hung by their strings.

Textiles

Mildew is the destructive enemy of athletic wear. Care must be taken to see that wool, cotton, or rayon garments are kept clean and stored in dry, well-ventilated rooms. The same is true of body pads, helmet linings, yarn winding of balls, and similar items containing fabric.

An additional precaution must be taken in the storage of woolen materials: They must be protected from moth damage. This can be done most effectively with odorless commercial sprays.

Nothing destroys mats faster than dragging on the floor. Mat carts for transportation purposes can be purchased from many sports equipment companies. However, a cart can be readily constructed from two by four's with rollers (purchased from any hardware store) attached to the bottom.

Removable mat covers should be sent to the laundry as soon as they are soiled. Mats which are used without covers may be first vacuumed and then scrubbed with a brush and commercial cleaner or soap suds. A minimum of water should be used and only a small area should be cleaned at a time; it should then be immediately wiped dry.

It is possible and profitable to treat mats with a rubberized paint. Soil can then be readily wiped off and the mats treated with anti-septic solutions.

A good way to increase the life of towels is to prevent students from abusing them and leaving them lying-around on the floor. An efficient checking-out system which demands everyone to turn in a soiled towel before receiving a clean one will do much to take care of this problem.

Most important in the care of nets is loosening to relieve the tension when not in use. Nets used outside should be taken in during bad weather and stored in a dry place.

Tarred nets are best for use in damp areas. If the area is one in which commercial fishing is done, fishing concerns will usually be willing to give tennis nets a dunking in tar along with their fishing nets.

Nets should be repaired at first sign of wear to prolong their usefulness. Canvas tops and bindings which receive the hardest wear can be replaced.

Metal Equipment

Metal equipment must be kept oiled or painted to prevent rusting. Equipment such as metal shots, steel tapes, and discs can be kept from rusting by cleaning and periodical application of a thin layer of oil.

(Concluded on page 55)

1952 **H & B** Catalogs



FREE

LOUISVILLE SLUGGER
HILLERICH & BRADSBY CO.
LOUISVILLE 2, KY.



Address request for your
free copies to Dept. SC

HILLERICH & BRADSBY CO., INC.
LOUISVILLE 2, KENTUCKY

By CHARLES L. RUSSELL
Harding Jr. H. S., Lakewood, Ohio

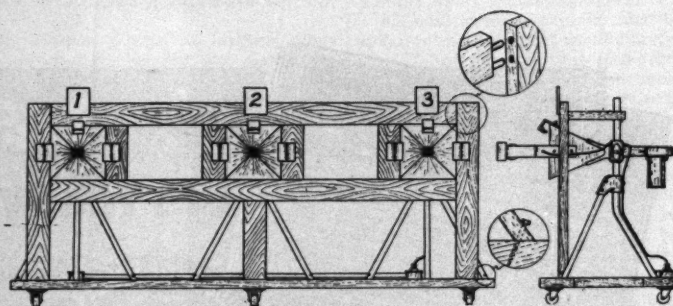
Getting the Range

IN ESTABLISHING any new program, one almost always crowds another organization or encroaches on someone's time. This invariably creates trouble. A broad-minded administrator will, however, weigh the value of the two programs and select the more worthwhile one.

For example, when we originally established our rifle club at Harding Junior H.S. (Lakewood, Ohio), we were crowded into a small gymnasium storage room 15 by 48 feet. With the aid of the American Ship Building Co., we were able to construct fine backstops for three-position shooting on three firing points.

We installed proper lights, painted the room, built a ventilator duct—and, well, before you knew it, we were the most "sought after" organization in the entire school system. Parental and public approval became so great that we could no longer be kept in a back storage room. At this point several dancing and table tennis classes were moved out and we were moved into the school gymnasium.

Within seven years we have developed one of the finest school ranges in the country. The gym is about 60 by 80 feet, well-lighted, ventilated, and sound-proofed. All wall structure is of brick. Entrances are at the rear and well back of the firing line. Prone mats are regular heavy gym mats. With a 60-foot room width, we can comfortably ac-



At Harding Junior High School, the bullet traps are mounted on wooden frames with castor wheels, facilitating their portability into and out of the range.

commodate ten firing points.

Our first problem in developing this range was the securing of an adequate backstop . . . adequate in that it had to be safe, easily moved, and easily stored. We decided to use the 10X Centrifugal Bullet Trap. We purchased ten of the 12-inch square, individually lighted units.

Had we sufficient funds, we would have purchased the 18-inch square traps because they handle the ten-ball tournament targets more readily and they are much more practical with junior shooters.

The only major criticism we have of the 10X traps is their awkwardness in being moved or handled. This was a big problem, since our gym is used for some type of training every period of the day. In order to allow sufficient time for shooting in any one period, we have to be able to move into or out of

the gym in five minutes—hence, we could not be troubled by dragging ten individual bullet traps to and fro.

Our solution came in the form of three dollies. These were constructed in such a manner that No. I dolly carried traps 1, 2, and 3; dolly No. II carried traps 4, 5, 6, and 7; and dolly No. III carried traps 8, 9, and 10.

The bases of the dollies were made of choice 2" by 6" and 2" by 8" white pine, with mortised-and-tenoned joints.

Dowel-joints may be used by those not having machinery to do the mortise-and-tenon job. Sufficient brace work should be installed to prevent warpage.

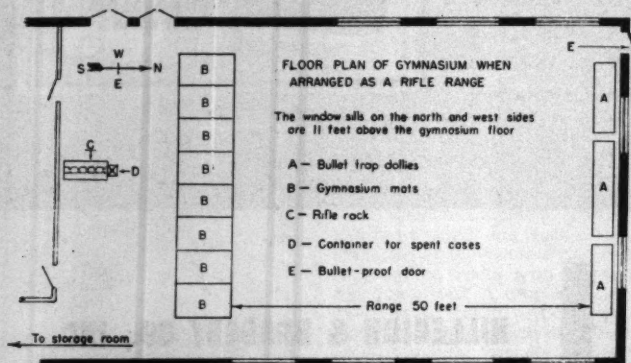
The bases were then equipped with three and four sets of large rubber casters. A sturdy and well-built caster is an essential.

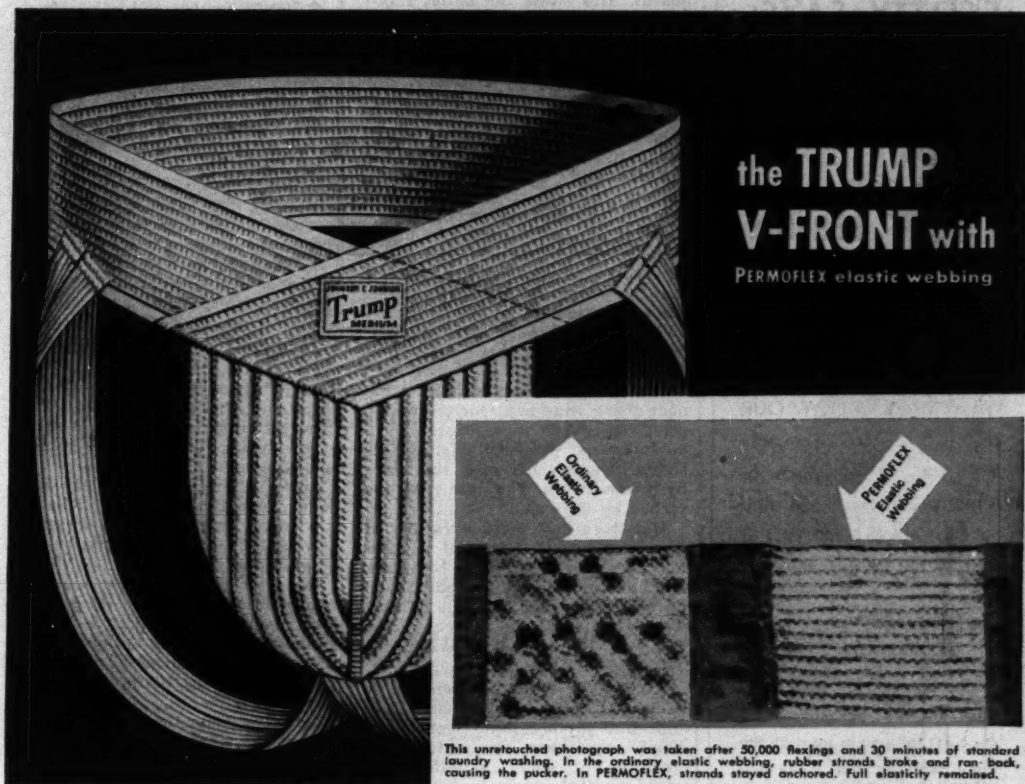
The 10X traps are furnished with a heavy pipe tripod. These we properly positioned on the dollies and secured at the base with long lag screws. The dollies were then wired with BX or regular conduit cable.

Removable "jumper cords" are used to make electrical connections between dollies. This, then, necessitated the installation of but one electrical outlet in the gym wall.

Do bullets ever miss the trap? Yes, occasionally a beginner will miss the entire trap. Then the bullet will hit the hard brick wall, flatten, and drop to the floor.

We have never had a ricochet. But, to lessen the possibility of a ricochet from the brick wall back of the target butts, we faced and enclosed the area around the front





A Johnson & Johnson exclusive for your teams—
V-FRONT comfort with
long PERMOFLEX life!

As the photograph shows, PERMOFLEX elastic webbing stands up under strains on the field and severe laundry washing.

For the PERMOFLEX rubber strands are heat-bonded to their covering yarn—will not run back even when broken.

You know how well V-FRONTs stay put! Your boys aren't worrying about a slipping, sagging supporter—keep their attention on the game. A glance at the construction shows why: The all-elastic waistband fits the body contours *naturally*. So anchored it lifts the pouch, keeps it in place.

Remember, **ONLY** Johnson & Johnson V-FRONTs Sup-

porters, *exclusively*, can offer you PERMOFLEX elastic webbing. You can identify it by the black stripe.

Available now in the TRUMP (3-inch waistband) and RUGBY (6-inch waistband) for greater abdominal support.

Your dealer will be glad to tell you about the new V-FRONT PERMOFLEX Supporters.

* (For sprained or weak ankles, wrists or other athletic injuries, try ADAPTIC—the Johnson & Johnson elastic bandage.)

THE NEW YORK YANKEE BASEBALL CLUB is using and endorsing Johnson & Johnson V-Front Supporters for the fourth straight season.

SCOTTY SAYS:



**"MARBA
SERVICE
IS BEST"**

We at MARBA KNOW OUR SERVICE IS BEST. The only way you, as a Coach or Athletic Director, can find out that MARBA SERVICE is best is by testing MARBA.

ONE TRIAL WILL CONVINCE YOU

It's the little hidden points that make MARBA SERVICE BEST. We can't tell you in print all the many features that make our service superior to all others. But one of our factory representatives can and will be glad to when he receives your invitation to call on you.

WRITE FOR
COMPLETE
INFORMATION

Marba Inc.
**RECONDITIONERS
OF ATHLETIC
EQUIPMENT**

Marba Service is Nationwide

425-31 NIAGARA STREET
BUFFALO 1, N. Y.
Phone Cleveland 0901

of the traps with heavy 2" pine boards. This slows the bullet sufficiently so that it scarcely marks the wall upon striking it.

Before installing the panel work, we had numerous shots strike the wall but never ricochet. The panel work also adds a great deal to the balance, rigidity, and appearance of the butts. The entire backstop is covered with a non-glare black lacquer.

If you carefully check the illustrated floor plan, you will note many windows in our range. The city engineering department has agreed that these windows are high enough and so positioned that should a bullet ever pass through one, it would do no damage to the surrounding neighborhood.

We have never had a bullet come near these windows. Our only wild shots have been those caused by a beginner not properly aligning his sights. These shots miss the traps by a few inches. They are now absorbed by the panel.

Harding's club owns a variety of target rifles so that boys of all sizes and ages may be properly equipped. We have a few match-grade Model 69 Winchesters for the little fellows. The rest include the Stevens Model 416, the Remington 513, and the Winchester Model 75.

This gives the boy a chance to select not only the rifle that will fit him but to determine from first-hand experience the outstanding qualities of each. Manufacturers could certainly profit from the findings of these boys.

Rifle marksmanship is taught each day just as Latin, English, or mathematics might be. This is done during school hours and regarded as any other class. Beginners are given one semester of basic training before being taken to the range. Oral and written examinations are given, thus weeding out the undesirables before permitting them use of the range.

After this period, the beginners are placed on regular squads with older members acting as coaches. (The second semester is a probationary range period.) If desirable progress is shown, they are permitted to go on to their third and fourth semesters and advanced team work.

Our entire club is divided into teams. There is but one team on the range per period. Each team is divided into three relays. Each relay has a captain and is in charge of a specified detail.

Relay 1 has charge of rolling out the target butts and making the necessary electrical connections. Relay 2 places the mats in position.

SCIENCE teacher and junior rifle instructor at Harding Junior High School (Lakewood, Ohio), Charles L. Russell is also a member of the Lakewood Rifle and Pistol Club, and does gunsmithing on the side. He is listed as an Expert Rifleman in the current NRA Classification Book. His article appeared originally in the December, 1947, issue of *The American Rifleman*, official journal of the National Rifle Association of America. It was also reprinted in the February 1948 issue of *Scholastic Coach*, and is being published again in response to many requests.

Relay 3 gets out the rifles and the portable rack. This requires about three minutes, but it takes slightly longer when returning the equipment.

Is the Club accepted by the students and parents? I'll say it is! It is a battle royal each year to know how to limit the size of the beginning club.

We train about 90 new boys per semester. Parents come on bended knee seeking admission for their youngsters. The club is financed by charging each member \$2 per school year. This carries us nicely. Should we wish to make a large purchase or improvement, the Board of Education will finance the deal for us.

The Harding Club became very popular in Cleveland during the war as a pre-induction training center. Several hundred received this training. At this point the Lakewood Rifle Club, Inc., an adult organization, stepped in and gave us some much needed assistance. Since then the Lakewood Club has stayed on and is making its headquarters with us.

Many educators have asked if rifle marksmanship pays from the standpoint of education. I believe it does. There are three reasons for the above statement:

(1) It gives those physically handicapped and less rugged individuals a chance to excel; (2) it will tame the most incorrigible and unreasonable bullies; and (3) it is a splendid tonic for a "case of nerves."

I know of no other sport that has a greater opportunity for building good citizenship. Good rifle sportsmanship rules are identical to good citizenship.

It may also be pertinent to add that the sport is perfectly safe. There has never been a serious accident on a range supervised by an accredited N.R.A. instructor!

One Coach tells another . . .

"BUY DIRECT FROM

Champion!
THE MANUFACTURER
FOR ECONOMY DURABILITY

Every year, more and more high schools, prep schools, colleges and universities "go Champion." That's because Champion's skilled craftsmen "team up" with fine fabrics and modern textile machinery to produce quality athletic and sports wear that is unsurpassed for appearance, fit, and long, rugged wear—and sold direct at prices that mean real savings. No wonder one coach tells another—"Buy direct from Champion!"



**WASHABLE WHITE
GAME JERSEYS**
with

"Aridye" Stripes & Numerals

A87LS Heavy weight cotton, white only, flat knit, double shoulders and elbows. Numerals and sleeve stripes in one or two colors, printed by patented "Aridye" process that makes them part of the fabric without adding to weight. Colors will not run despite hard wear and repeated washing. Sizes to order, 36 to 46.

Price, complete Each, **\$3.85**

A68LS Same as above, but in medium weight white cotton.

Price, complete Each, **\$2.45**

A96LS Same as above, but in mercerized white "Durene."

Price, complete Each, **\$3.80**

A86LS Same as above, but in lustrous white rayon plait.

Price, complete Each, **\$3.55**



PRACTICE JERSEYS

\$64LS Heavy weight, unbleached white cotton, extra full cut. Includes double shoulders and elbows. S-M-L. Each **\$1.90**

Aridye 8" or 10" numbers, or design, 15c per side.



**KNITTED
FOOTBALL PANTS**

KFP A heavy cotton knit washable shell pant, high rise, full cut, sturdily constructed. All the features of a high price pant. Zipper fly, pockets for thigh guards and knee pads. Reinforcing at vital points. Tunnel loop on waist for belt. White in stock, all colors to order. Sizes 30 to 40.

White Per pair, **\$4.35**

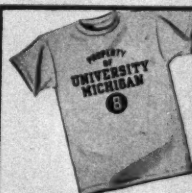
KFP/C Colors Per Pair, **\$4.50**



SCRIMMAGE VEST

\$68BS Ideal for distinguishing teams in practice. Heavy weight cotton, waist length body, elastic bottom. Stock colors: Royal, Scarlet, Kelly, Gold; all other colors to order. Size 40 to 46. Doz. **\$12.00**

**WRITE FOR COMPLETE
ATHLETIC CATALOG**



T-SHIRTS

780S Standard weight, white cotton, full cut. Sizes S-M-L. Plain.

Doz. **\$6.50**

With Champion design.

Doz. **\$8.40**

770S Heavy wt. cotton, extra full cut, extra long,

reinforced shoulder seams. Sizes 36 to 46. Colors: White and light Oxford Gray.

Plain. Doz. **\$ 9.00**

With design Doz. **\$10.80**



SWEAT SOCKS

Sizes 10, 11, 12, 13

18T Medium weight cotton, elastic top.

Doz. **\$3.00**

J Heavy weight cotton, rib top, nylon

reinforced toe and heel. Doz. **\$4.90**

R Heavy weight, 35% wool, 10% nylon, 50% cotton, 5% rayon. Colored toe stripe for size identification. Doz. **\$5.40**

SUPPORTER

B Mesh pouch, 3" waist. S-M-L. Doz. **\$4.75**

MANUFACTURERS from yarn to finished product

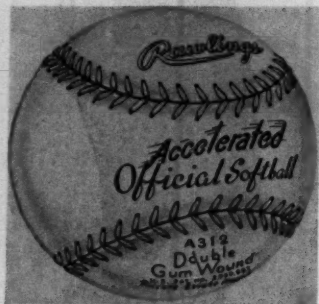
CHAMPION KNITWEAR CO., ROCHESTER 4, N. Y.

NEW EQUIPMENT

For further information on any of these items, write to: Scholastic Coach, New Equipment Department, 351 Fourth Avenue, New York 10, N. Y.



● **WELDED STEEL BLEACHER.** The exclusive welded, rigid frame, panel construction in modern Playtime bleachers permits conversion from football to baseball seating quickly, easily, and without dismantling!



● **ACCELERATED SOFTBALLS,** featuring use of finest kapok, give the Rawlings' ball extra life and resiliency.



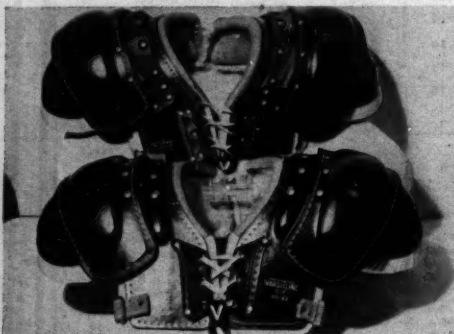
● **3-FINGER GLOVE.** The latest MacGregor Goldsmith model features a deep ball pocket and a special no-rip thumb.



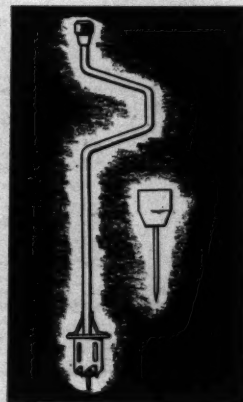
● **PORTA-GOAL,** a J. J. Spitzer Co. product, offers two regulation baskets for use at same time. All-steel, it weighs about 400 lbs., will not sway, and can be moved anywhere with ease (dolly is built into base).



● **DISPLAY BOARD.** Perfect for showing won-lost standings, League-O-Meter is made of varnished wood and features rotating wheels and removable team-name tabs.



● **VARSITY SHOULDER PADS,** a new Wilson Sporting Goods line, are tailored to fit every player on the squad for the first time in football history. Sizes range from 32 to 54, and pads offer the ultimate in comfort, the last word in proper fit, and the maximum in protection.



● **GROUND PLUGS.** Drill holes with special auger, then drive in plugs—giving you permanent line indicators! Distributed by the University Athletic Equipment Co.

CLIMBING
ROPES

POND-MEDART
TWISTING BELT

Everything in Gymnasium Apparatus

Medart
ST. LOUIS
MISSOURI

SIDE HORSES

HORIZONTAL
BARS

PARALLEL BARS

SWIVEL
FLYING
RINGS

Whether you need only a single item of gym apparatus... or all the physical-fitness equipment required to completely furnish the largest modern gym... *you can get it from Medart.* For here is the *Only Complete Single Source in The World!*

Here is equipment reflecting an international reputation for skillful design and the finest of materials and craftsmanship. Here is quality equipment that has won coveted acceptance and approval from thousands of leading schools and colleges, the Olympics and the greatest of championship meets. Here is equipment that has never been surpassed in value, in serviceability, or in precise conformance to Official standards.

If it is your responsibility to recommend or buy gymnasium equipment... or, if you are concerned in the modernization, planning, building or furnishing of a gymnasium... it will be to your advantage to consult with Medart. Nearly 80 years of experience is at your service without obligation.

Write For Literature

TYPICAL EQUIPMENT IN THE MEDART LINE

<ul style="list-style-type: none"> ■ Climbing Poles & Ladders ■ Basing Rings & Bag Supports ■ Vault, Jump, Game Standards ■ Physical Therapy Equipment ■ Anthropometric Equipment ■ Football Scoreboards ■ Basketball Scoreboards ■ Telescopic Gym Seats 	<ul style="list-style-type: none"> ■ Stall Bars ■ Resistance Machines ■ Rowing Machines ■ Pulley Weights ■ Mats & Mat Trucks ■ Basketball Backboards ■ Lockers ■ Wire Baskets & Backs
--	---

...plus many other items not illustrated or listed here.

3042 DE KALB STREET
ST. LOUIS 10, MISSOURI

Medart

World's Only Complete Single Source For Gymnasium Equipment

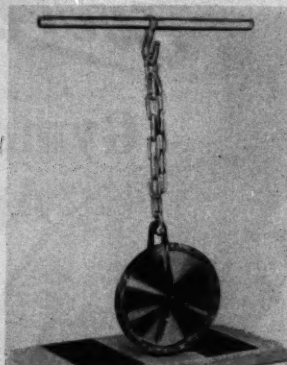
Physical & Personal
Equipment

NEW EQUIPMENT

For further information on any of these items, write to: Scholastic Coach, New Equipment Department, 351 Fourth Avenue, New York 10, N. Y.



● **COACH KEANEY SHOE**, produced by Bristol Mfg. Corp., has moulded outsole with suction cups and special wide tongue with padded lining.



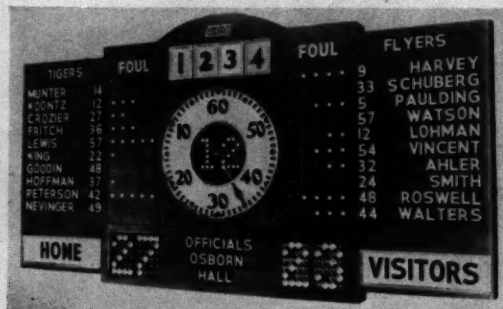
● **BACK AND LEG DYNAMOMETER**. Produced by Fred Medart Products for physical therapy depts. and gyms, this device has capacity up to 2500 lbs.



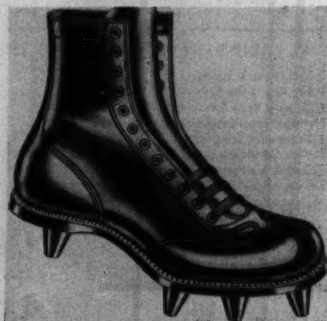
● **RIBETT-KNIT FOOTBALL PANTS** made of reinforced nylon is light yet tough and elastic and hugs body like skin. Developed by Sand Knitting Mills, it features hanging thigh guard pockets, reversible knee pad pockets and zipper front.



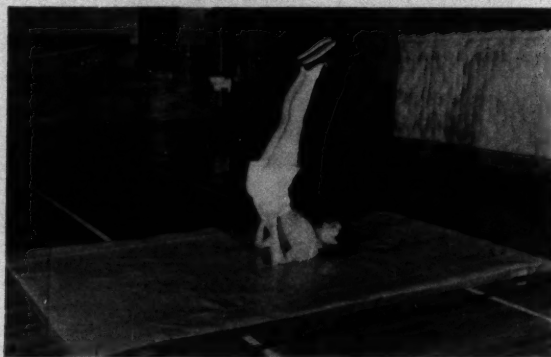
● **PROTECTIVE T SHIRT**, designed by Hodgman Rubber Co., is made from genuine nylon with thin coating of neoprene which keeps player dry and warm in bad weather.



● **BASKETBALL SCOREBOARD**. Designed by Nevco Scoreboard Co., this board represents the best in looks, construction and use.



● **BROOKS-TEX** constructed shoes won't stretch out of shape, have glove-like fit, and unusually high water resistance.



● **ALL-PLASTIC GYM MAT COVERS**, featured by Peterson & Co., are smooth, cannot chip or peel, eliminates mat burns, slip on and off easily, and can be cleaned with amazing ease and speed. The Masland Duran all-plastic processing also provides secure, safe footing for gymnasts, since its surface is not slippery and cannot become so with use.

It's **NEW** for '52

Pro Treated BATRITE

*Protected
for Life*



The Hanna Pro Treated Batrite has been a smash hit with professional and college players everywhere.

This new and exclusive Hanna treatment tightly binds together the layers of wood on the hitting surface and protects the barrel *for life* against excessive chipping, splintering and denting.

It's a tough, hard-hitting bat with all the features most players and coaches want; the finest straight-grained Northern White Ash; skilled craftsmanship; power-packed designing —plus the new Hanna Pro Treatment!

**THE HANNA MANUFACTURING
COMPANY**

ATHENS, GEORGIA — SELMA, ALABAMA

Subsidiary Plants:

KINGSTON, N. Y. — NASHVILLE, TENN.

Sizing up the Trampoline

THERE'S nothing new about the idea of bounding on a net or similar bed having a spring or rubber attachment to add to the lift. The bounding principle goes all the way back to the circus acts in medieval Europe.

In modern times, however, it has been developed into a new sport known as trampolining. Today, thanks to the standardization and mass production of the trampoline, the activity has become enormously popular in schools, Y's, camps, pools, and recreational centers.

Unlike other types of gymnastics, trampolining is the first strictly American contribution to the field. Being a newcomer, it still isn't entirely familiar to many schoolmen. So let's explore some of the questions most frequently posed by coaches, performers, and others interested in the activity.

Why has trampolining been accepted so enthusiastically?

Trampolining is, first of all, a lot of fun. Every beginner gets a tremendous thrill out of the "big bounce" he experiences the first time up. This "big bounce," in turn, enables the average person to quickly learn tricks that used to take tumblers and divers years of hard practice and conditioning to master.

What is the best size of trampoline?

People often ask if it's possible to obtain a small trampoline for use in introducing the activity to children.

By **ROBERT FENNER**

This definitely is the wrong approach. The more inexperienced the person, the larger the trampoline should be!

Some of the professional performers use a small trampoline for convenience in traveling around the country, getting in and out of buildings and elevators, etc. But even the pros find it impossible to do certain stunts on the small tramp that are easy on the larger device.

When competition began mushrooming in the colleges and high schools all over the country, it was deemed essential to establish a standard trampoline to equalize competition. Otherwise a team that had trained on a trampoline of different type or size than the one in competition, would have been at a decided disadvantage.

The Big Ten schools met this challenge by adopting a standard 15 ft. by 9 ft. trampoline with a web-type bed.

Until recently, it was thought that the trampoline should be long and narrow. However, with the development of such modern stunts as multiple twisting somersaults, turntables, side somersaults, and branies (sometimes done in swing-time in a circle), it was found that the trampoline needed a little more width than heretofore. The actual

bed size of the large modern trampoline (excluding the outside frame) is approximately 6 ft. wide by 12 ft. long.

What's the difference between the interwoven web bed and the canvas bed?

These are the two most popular types of beds. The latter type, made of a solid sheet of canvas, is the most widely used, since it's the least expensive (canvas beds currently sell at less than half the price of good web beds) and is less tricky to work on, thus facilitating the learning process.

In the Navy pre-flight schools during the past war, many of the instructors preferred the canvas bed for class instructional purposes. They found it provided a better workout in a shorter time, that the canvas surface wasn't as rough as the interwoven bed, and that it made possible the use of a light, sanitary, washable mat cover.

Though the canvas bed is far from obsolete, the interwoven bed is being used more and more by experienced trampolinists—the college as well as the professional performer—because of the more effortless height attained for the stunts, making it easier to stay on the trampoline for longer periods.

This easier, more effortless lift is especially desired by the college competitor, whose exercise is restricted to a certain length of time and is judged heavily on swing-time. (Swing-time is the continuous performance of stunts without a "free" bounce in between.)

Performers who work outdoors will also discover that the web beds are less susceptible to changes in weather, and so are to be preferred. Dampness deadens the bounce on a canvas bed more noticeably than on a web bed.

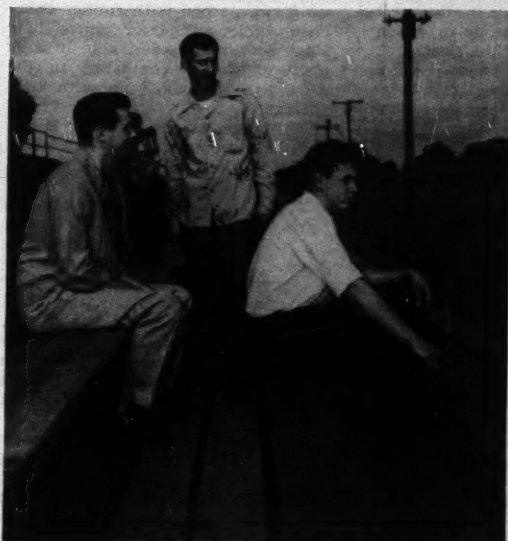
The web bed is usually made by interweaving two-inch wide strips of webbing, spaced about a half inch apart, so as to afford half-inch square holes throughout, thus permitting air to pass through more easily for a lighter, faster lift.

Which is better, steel springs or rubber cord?

Two methods are now being employed to get lift from a trampoline; that is, through use of either steel springs or rubber shock cord, sometimes called exerciser cable, be-



Large folding tramp with canvas bed and springs recommended for most schools. Web bed for specialized work was illustrated in author's article last month.



Type W outdoor bleachers with roomy 27-inch back-to-back seat measurement and double footboard affording the utmost in seating comfort, entry and exit. Also comes with single footboard and 23-inch back-to-back seating.

Outdoor Bleachers



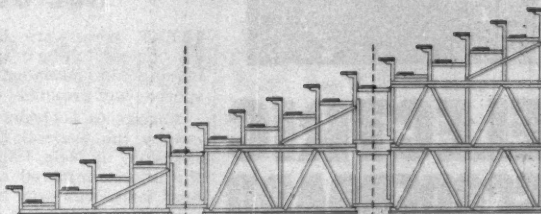
Indoor Bleachers



Concrete Combination Stadium

OUTDOOR BLEACHERS

Type W outdoor portable bleacher comes in 5, 10, 15, 20, and 25 row units. Each unit of 5 rows can be easily dismantled and moved by attaching broad six-inch wheels, which we can supply. Illustration at right shows how a 15-row outdoor bleacher is made up of three 5-row units with supporting structure. Each unit of 5 rows can be detached and used as a separate unit.



INDOOR BLEACHERS

Our new Protracted-Plicated indoor bleachers open and close with ease. Have a 26-inch back-to-back seat measurement and afford the maximum in seating comfort. Also available with a 22-inch back-to-back seat measurement, where space is limited. Folded, the bleachers take up approximately 1/6 of the floor space needed when opened.



WE ALSO MANUFACTURE prefabricated dugouts, press boxes, dressing rooms, and storage structures. These are easily erected by two men and can be dismantled and stored when not in use. Our portable folding boxing ring which can be used also as a stage and reviewing stand, measures 24' x 24' standard, but can be furnished either in smaller or larger sizes.

Delivery on outdoor bleachers one month after receipt of order.

Write for detailed explanation and pamphlets on all items.

CONCRETE STADIUM

Our All-Concrete Stadium is a combination stadium and educational building. The space underneath the stadium can be used for classrooms, dressing rooms, shops, offices, auditoriums, toilets, concessions, ticket booths and many other uses. The stadium has a very low up-keep, since it needs no painting. The seats have a 12-inch rise, offering the spectators perfect visibility. The whole structure is constructed of concrete blocks and slabs. This includes side walls, back wall and interior partitions and floors. This type of structure has never before been sold as one package on a national scale.

SAM W. INGRAM & ASSOCIATES, BOX 89, HAMILTON, N. Y.



NADEN



ELECTRIC SCOREBOARD

Always on top of the play! Regardless of size there is a NADEN BOARD for your gymnasium. Featuring the famous NADEN INSTANT-VUE NUMERALS, Naden Electric Basketball Scoreboards will eliminate guesswork and inaccuracy. Time and production is limited, now is the time to investigate the many advantages of NADEN. WRITE FOR DETAILED CATALOG! NO OBLIGATION.

NADEN AND SONS

WEBSTER CITY, IOWA

NAME _____
ADDRESS _____
CITY _____ STATE _____

tween the trampoline frame and bed. It's a moot question as to which is really the better of the two.

Years ago, the rubber cords and other types of rubber springs were used by circus performers probably for no other reason than that they were easier to obtain and lighter than steel springs. However, since trampolining has become accepted as a sport, the great majority of trampolines are equipped with steel springs.

Steel springs are preferred to rubber cord because they are cheaper, more durable, and can duplicate if not better the lift given by shock cord. This can be done through such devices as lengthening or shortening the overall length of the spring, increasing or decreasing the diameter of the spring coil, and increasing or decreasing the diameter of the wire used to make the coil.

Springs are also easier to maintain since they don't have to be unhooked periodically, as does the rubber, to maintain elasticity.

A good test of the relative qualities of these two materials is to hook

up a canvas bed with rubber exerciser cable and then notice how slow, soft, and undesirable it is in performance as compared to the same canvas hooked up with steel springs.

This demonstrates that it is the web bed in combination with shock cord that gives the more desired lift, and not the rubber cord alone.

One of the earlier objections to springs was the possibility of breakage, with flying pieces creating a hazard to both performer and on-lookers. This has been eliminated by the attachment of small individual loops to the inside of the frame, making a spring anchor with no binding. The binding was the cause of the breakage when the springs were attached to the holes drilled in the frame tubing.

To sum up: The ideal trampoline for most schools is the large folding type with canvas bed and springs. For the more specialized work done by tumbling teams and the professional trampolinist, the same holds true except that the web type bed is more desirable.

"Hot Stuff" for Soggy Fields

HEAT lamps are becoming the "hottest" thing in sports! They're driving that dreaded bugaboo of sports—wet grounds—to the dryers!

Thanks to a clever idea worked out by the General Electric Lamp Division, of Nela Park, Cleveland, the intense infrared radiation from heat lamps can now be utilized for emergency drying of water-soaked patches of turf.

The first major effort to dry out an athletic field reportedly took place at the U. of California's Memorial Stadium just before the 1950 Stanford-California game. It had rained for 10 straight days and the mud was ankle-deep in many places. The field was in the worst condition of its history.

At \$50 an hour, a giant helicopter blew off the surface water. But the turf remained extremely soggy. Sawdust, tanbark, and even burning gasoline were then applied. "Still much too wet" was the official verdict.

After all other efforts to dry the field had failed, General Electric lighting experts were called in. They suggested the use of banks of infrared heat lamps. Their proposal was adopted.

Two banks of lamps, each consisting of sixteen 500-watt lamps in industrial-type units were used.

Drying areas 30 square feet at a time, the units were moved every 40 minutes throughout the night before the game. By game time, the field was in greatly improved playing condition.

The success of this operation indicated the desirability of portable banks of heat lamps as part of the standard equipment of athletic groundskeepers. Rather than try to dry out an entire field, it is much more practicable to confine the drying process to several of the worst mudholes on the football field or baseball diamond infield.

Similar banks of infrared lamps might be used to advantage for the drying of tennis courts, running tracks and other outdoor areas. And they might also have some value for keeping the players on the bench warm and comfortable during cold weather!

While the heat lamps should not be looked upon as substitutes for tarpaulins, especially in rainy areas, they do represent valuable auxiliary equipment in reducing both miserable playing conditions and postponements of games because of wet grounds.

During the past football season, several colleges and universities used this "treatment" regularly whenever the weather proved uncooperative.

All Eyes on Trampolining!

... Serves All Sports A Sport in Itself ...

**BODY
BUILDING**

TRAINING

CONDITIONING



ACTION

**SPECTATOR
APPEAL**

COMPETITION

And in Trampolining ... the World Over ...
NISSEN is THE "NAME"

... Nissen Designers and Craftsmen Work
EXCLUSIVELY at producing an ever-better

TRAMPOLINE*

To meet the demands of your Gym, Physical Education and Recreation Programs.

...

NISSEN—Creator of America's ORIGINAL Standard Trampoline and Founder of Trampolining as a Sport presents

MODEL 549-T Designed and constructed for long, exacting usage ... An extra-size FLASH-FOLD model with firm "V" End Support feature to offer full resilient surface. Built-in spring anchors ... Frame of all-welded, double-steel tubing. Standard for collegiate competition.



AN aerated woven-web bed. Fits any model. Perfected by Nissen in 8 years of tests and actual use. Hand-woven of 2-in. nylon parachute webbing. Multi-stitched for maximum strength. Durable special metal fittings attached for securing to either springs or rubber cord (exerciser cable). Meets collegiate regulations.

**STANDARD TRAMPOLINE
PARTS and ACCESSORIES**

WRITE FOR FREE LITERATURE

*Name TRAMPOLINE Reg. U.S. Pat. Off.

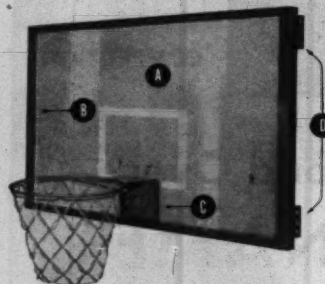
MINI-TRAMP

"The Modern Springboard"
for GYM, BEACH or POOL

NISSEN TRAMPOLINE CO., 200 A AVE., NW, CEDAR RAPIDS, IOWA

Install Nurre all plate glass Banks

- For greater strength
- For greater accuracy
- For livelier rebounds
- For easier installation
- For better visibility



A Fabricated from heat-strengthened polished plate glass—3 to 5 times as strong as ordinary plate.

B Glass gripped firmly on all sides by wide, rigid angle iron frame. No beveling—glass has square edges to prevent breakage.

C Extra-large steel face plate, 10" x 9 1/4" x 1/4" thick, attached to back by three widely spaced bolts to provide maximum strength. Only three holes through the glass. Basket mounts securely on four lugs which are correctly spaced to accommodate official basket (No. 960) manufactured by Shutt Mfg. Co., Litchfield, Ill.

D Two steel mounting flanges on each side. Bank is designed for any type of suspension. Also available with flanges and loop for post-type installation.

**Send for free
bulletin containing
full details**

Wherever Nurre All Plate Glass Banks are used, they win the praise of players, coaches—yes, and spectators, too! Because built into every Nurre Bank is *extra* strength and permanence... ever lively and accurate performance... plus unobstructed visibility for the fans in the end-court seats.

Nurre All Plate Glass Banks are *guaranteed* against breakage incident to ordinary use in play. There has never been a Nurre Glass Bank broken in play—in 30 years.

Specify Nurre—always. Send for free detailed bulletin—today.

THE NURRE COMPANIES, INC.
Bloomington, Indiana



New Books on the Sport Shelf

- **DEFENSIVE BASEBALL (Chart).** Designed by Bernard Evans. 24" x 38". Forestville, Cal.: Bernard Evans. \$3.

THIS ingeniously devised chart offers a complete course on defensive baseball! "Ingenious" isn't being used ill-advisedly. That's just the word for it.

The center section of the chart is taken up by a large diamond showing more than 75 key deployments of the nine defensive players. Every conceivable defensive situation is graphically illustrated and explained. The tactics and techniques are analyzed position by position in neatly arranged text blocks around the diagram.

When placed in the dressing room or on the bulletin board, the chart offers a perfect way to teach defensive baseball. The coach doesn't have to say a thing. It is all there on the chart. The player can study the diagram, refer to the terse, authoritative text, and he knows it all. This saves hours of individual instruction on the field—valuable time that can be utilized for hitting and fielding practice.

This is a terrific coaching device (a natural for rainy day and skull sessions), which the coach may employ for years and years.

- **TECHNIQUES AND TACTICS OF BASKETBALL DEFENSE.** By Blair Gullion. Pp. 200. Illustrated—photos and diagrams. St. Louis: Blair Gullion. \$3.

AS far as we know, this is the first basketball book ever devoted exclusively to defense; and it comes at a most propitious time. With the basketball world going point-crazy, defense has been going to seed, and it's about time that coaches came back to it.

A good defense still offers the coach a tremendous advantage. If he can develop a good defense to go along with a good offense, he is bound to enter every game with an edge. The point to remember is that a strong defense is one of the best offensive weapons in the book. Good defensive players keep coming up with the ball, giving the offense the possession it needs to score.

Another point to remember is that good defenses are more consistent than good offenses. Defensive clubs, therefore, are much less prone to "off nights" than offensive clubs.

Blair Gullion's book offers a superb, comprehensive treatment of every phase of defense. Beautifully organized and unusually well-written, it may well serve as a guide to the art. The author, who is basketball coach and athletic director at Washington University (St. Louis), covers his

subject along 14 major lines, namely:

General factors about defense, individual requisites, mechanics of individual defense, role of vision, value of talk, general tools and tactics, defense against screen plays, defense against the pivot player, defense for jump-ball situations, defensive rebounding, defense against out-of-bounds, defense against the quick break, forcing or pressing defenses, developing the defensive plan.

Each of these sections is covered in detail and illustrated with many excellent pictures and diagrams. Years of time and effort have gone into the preparation of this text, and the book certainly reflects it. It is a thoughtful, detailed, extremely practical manual that fills a heretofore acute void in the literature on the game.

- **MEASUREMENT AND EVALUATION IN PHYSICAL, HEALTH, AND RECREATION EDUCATION.** By Leonard A. Larson and Rachael D. Yocom. Pp. 507. Illustrated—photos, tables, and charts. St. Louis: The C. V. Mosby Co. \$7.50.

A BEAUTIFULLY put-together, graphic, well-written, and comprehensive text, this book establishes the place of measurement and evaluation in an educational program by relating it to the other eight functions of education—interpretations, objectives, social organizations and auspices, programs, leadership, history and trends, administration, and professions.

The authors, who are colleagues at New York University, stress the point that measurement and evaluation are tools—means to an end—rather than ends in themselves.

The first section of the text delineates the authors' basic philosophy, laying down the nature and scope of the measurement and evaluation program as well as basic principles and operational guides.

The second section concerns itself with the measurement of the product of education, covering the measurement of organic functions (cardiovascular-respiratory functions, muscular strength, power, and endurance; body build, motor fitness, etc.); the measurement of general motor skills; the measurement of knowledge, understanding, attitudes, and practices; and individual adjustment to animate and inanimate environments.

Section 3 evaluates the process of education (evaluation of program operations, the factors in the conduct of programs); Section 4 offers an analysis of results (the statistical tools); and Section 5 sets forth the administration. (Concluded on page 60)

NST Track Shoes
Guaranteed
 Because they are reinforced from toe to heel with a specially woven nylon tape, every pair of SPOT • BILT N S T Track Shoes is guaranteed not-to-stretch and to outwear any track shoe on the market. This means when you order N S T's you are not only ordering the finest track shoes available, but are insuring your investment and reducing replacement equipment costs!

SPOT • BILT, INC.
 1635 W. AUGUSTA BLVD.
 CHICAGO 22, ILL.

NST
 NON-STRETCH TRACK

**No other
 TRACK SHOE
 In America
 offers
 this
 Unconditional
 Guarantee!**

HERE'S WHY N S T TRACK SHOES ARE GUARANTEED IN WRITING

- Reinforced from heel to toe with a specially woven nylon tape—retains its smooth, perfect fit for the life of the shoe
- Special tanned bend leather sole . . . noted for its resistance to friction
- No exposed sole stitching to wear away or break apart from uppers

THERE'S A SPOT • BILT DEALER
 IN YOUR AREA. CONSULT HIM
 ON ALL YOUR ATHLETIC FOOT-
 WEAR NEEDS OR WRITE DIRECT TO

SPOT • BILT inc.
 1635 W. AUGUSTA BLVD
 CHICAGO 22, ILL.

A simple improvement on the regular backboard enables the players to practice many different strokes

Variations on a Backboard

By **CARL ROHMANN**

Tennis Coach, University of Virginia

MANY a tennis player has started his career with hours and days of hitting the ball against the wall or against the practice board. Great benefit can be derived from this type of practice and it is a reasonably satisfactory substitute for rallying with another player.

But anyone who has used the standard practice board knows that one of its weaknesses is the sameness of the shots as they come off the board. It is impossible to make the board shoot up a lob, and thus there is no opportunity to practice the very important smash.

Down here at the University of Virginia in the spring of 1948, Tom Wyche, Al Hollander, and I were trying to work out some mechanical way to shoot up lobs.

Our first thought was for some type of cross-bow arrangement, but this did not prove at all practical. We then thought that a concave board would give us the desired effect, but we had no luck locating a board of that type and we let the idea drop.



Notched arms on frame make it possible to tilt the practice board at different angles, which varies the type of return.

That summer, at Prouts Neck Country Club, I noticed a large, flat table in the locker room. After Labor Day when lessons had tapered off, we put this table out on the court with the top at an angle. We hit a few balls against it and noticed that it tossed up a perfect lob each time it was hit.

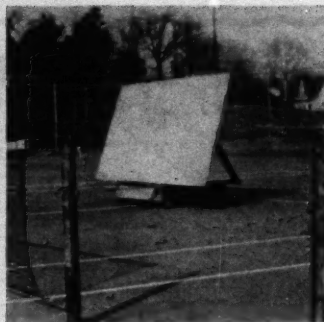
After this experiment, we evolved the movable and adjustable practice board which we are now using. The construction of this board is relatively simple. The board proper is five feet wide and nine feet long. It is mounted on a movable base and has notched arms at the rear which permits the board to be tilted at different angles to vary the type of return.

For practice on ground strokes and low volleys, the board is set in an almost upright position which keeps the returns low. When tilted at an extreme angle, the board sends back lobs for overhead practice.

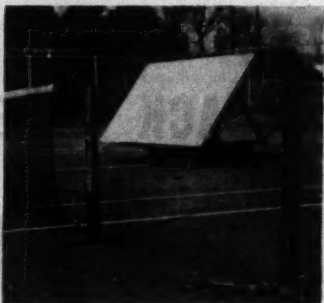
Since the present model is just five by nine, only the better players can hit it often enough to get a great deal of practice. By increasing the size, however, it can be made adaptable to anyone's game. The average player would need two sections to get real benefit from the board.

Bill Shock, our number three player, is very enthusiastic about it. He has a private court in St. Louis and he is going to make one for himself.

The board was used considerably this winter by individual members of the team. It can be adapted to almost any shot by changing its position. By far the most popular shot practiced against the board is the overhead. The board may be adjusted for a high floater lob or a low fast lob. When the player



For practice on ground strokes and low volleys, board is set in an almost upright position, which keeps returns low.



When tilted at an extreme angle, board sends back lobs for the all-important overhead practice—its most popular use.

smashes the lob into the board, another lob is sent up immediately. As many as thirty consecutive overheads have been hit before missing the board.

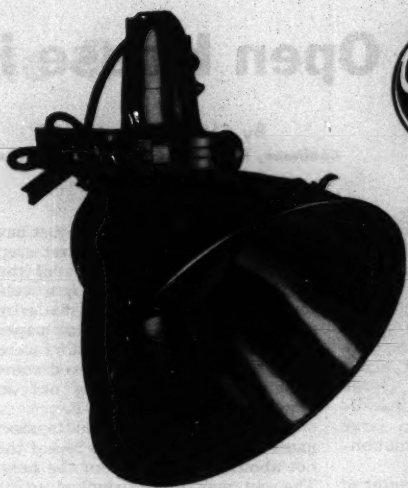
Since most good college matches are won or lost in the doubles, and since most doubles matches are won or lost with overheads, overhead practice is extremely valuable.

The short forcing approach shot is the best ground stroke to practice against the board. This is one of the most frequently missed shots in the game, and players can benefit from a little concentrated practice. Harold Burrows occasionally uses the board for shoulder high volley practice.

The board is especially good for practice indoors and doesn't necessarily have to be set up on a court. It can be set up in a front yard or in any space where there is room.

There are many improvements that can be made in the structure and development of the adjustable practice board, but even in its present form it is an effective coaching aid.

(Reprinted from American Lawn Tennis)



L-69 FLOODLIGHT

For lighting sports fields and recreation areas General Electric's universally accepted Type L-69 floodlight is your best bet. To improve your sports lighting, consider the simplified installation and maintenance and more light per watt featured by this light.

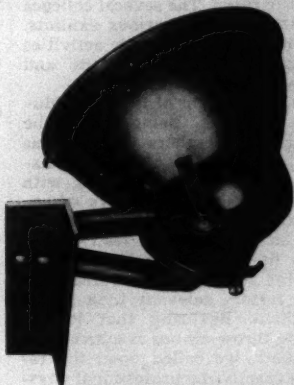
Heavy-duty service at lightest weight is yours with L-69's. Remember, they have simple one-bolt mounting, convenient beam-sight aiming . . . don't require any tools for initial positioning and maintenance . . . have favorite hand-toggle latches. The spun-on, impact resisting tempered plate glass won't break if struck by ball, keeps water, dirt, and insects out permanently.

For your convenience, Floodlighting Plans for Sports and Recreation are available. Get them from the lighting specialist in the nearest G-E Sales Office, or write to Apparatus Department, General Electric Company, Schenectady 5, New York.

NOW GET THESE 5 FLOODLIGHT FEATURES



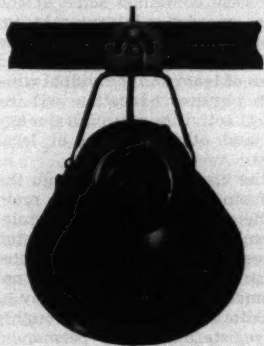
To put the right light in the right place, and to save installation time, the G-E Type L-69 floodlight can be aimed precisely—during the daytime—with the convenient beam sight.



To permit easy removal of particles in case of lamp breakage, the reflector tips over completely. No tools required.

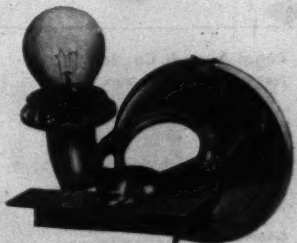


Exclusive L-69 features save time and effort in adjusting and servicing the light. Built-in wrench-type handle eliminates need for tools. Double clamping action holds against vibrations.



Relamping and cleaning is easy. Just flick hand toggle latches, clamp socket housing to trunnion bracket. Hands are free to service light, and reflector need not be disturbed for cleaning.

For many installations, floodlight can be aimed while the pole is on the ground with the aid of easy-to-read horizontal and vertical degree scales.



GENERAL  **ELECTRIC**

451-160

How to S-t-r-e-t-c-h your Trophy budget



Personalized
sports
"OSCARs"
as low as
\$1.80

In every type of award, from personalized sports "Oscar's" to impressive championship creations, Regal's new line provides interesting innovations at

handsome savings. Gold-inscribed plastic plates at 1/10th the cost of hand-engraving on metal 5-day prepaid service! Send coupon below for new full-color 1952 catalog.

Typical new
championship
trophy
\$59.00



Regal Awards Co., Inc.
1265 Broadway, New York 1, N. Y.

Rush 1952 catalog.

Name _____
Title _____
School _____
Address _____
City _____ State _____

Open House in

By CHARLES E. MILLER
Chairman, Physical Education, U. of Nebraska

OPEN-HOUSE demonstrations offer the school and college physical education department an effective means of acquainting the public with the work being done in the gym. Too often the lay public and even some of the faculty are uninformed or misinformed about the functions and activities of the physical ed department, and a well-organized demonstration can serve both an educational and promotional purpose.

The following detailed account of an actual demonstration may furnish the reader with ideas, a plan, or just the courage to attempt a similar venture. It originated as part of the annual "College Days" at the U. of Nebraska. The several colleges organized for the various exhibits, demonstrations, and other activities through student committees and faculty sponsors.

The Department of Physical Education for Men, being under the direction of Teachers College, was organized as a unit of the T.C. display. After a general meeting with respect to the College Days schedule, the P.E. Department went to work on its part of the festivities.

The first matters to be discussed were the general policies, ideas, and other factors relevant to a public exhibition. Realizing that it was vital to throw all our resources into the affair, we called upon the recently reactivated professional physical education fraternity—Phi Epsilon Kappa.

This group of about 30 outstanding physical ed majors leaped into the breach and immediately formed five committees covering (1) Lobby and Entrance, (2) Activities, (3) Intramurals, (4) Professional Preparation, and (5) Phi Epsilon Kappa.

These committees plunged into their assigned tasks, and after several meetings were ready to assemble the exhibits and put everything into shape for the opening day. When the public appeared on the big day, the boys were there to greet them, request them to sign the register, answer questions, guide the visitors according to the pre-arranged route, and assist in any manner that would make the visit an enjoyable one.

The exhibit proper began just before the visitor took his first step leading up to the entrance of the building. He was greeted by a welcome sign. This sign was made by stapling four-inch red crepe paper to a badminton net. The letters were as high as the net and spaced completely across it, spelling out an imposing W-E-L-C-O-M-E.

The net ends were tied to steel game standards, with the top of the net about eight feet from the base. The net was then stretched to its complete width at an angle outward from the entrance door.

As the visitors passed through the door, they entered the building lobby, which is about 30 feet long and 20 feet wide. The lobby contained a very large map of the state of Nebraska posted on an easel about four feet high.

PIN-POINTED MAP

The map was pin-pointed with red-headed pins representing all the former students in the Department that were currently teaching and coaching in the various communities. At the side of the map, a printed notice informed the guests that a number of our students were located in other states in public school work, colleges, city and state recreation, church recreation, YMCA work, boys club work, Red Cross work, and other allied fields.

The lobby also displayed a trophy case, the building directory, a permanent picture display case, and a notice for guests to register. The trophy case contained some of the trophies awarded to intramural team champions during the year, while the picture display case featured pictures of team and individual winners in physical education and intramural activities, intramural managers, and other pictures of local interest.

As the visitor passed through the door from the lobby to the main floor, he was greeted by a committee member plus a mounted skeleton borrowed from one of our labs. Close proximity to a skeleton is not a common experience and many of our visitors examined it thoroughly after registering in our permanent

the Gym

guest book. For comedy relief, a large sign was hung around the skeleton's neck reading, "Our Department Chairman Welcomes You."

At this point, a guide took the visitor to a table which contained the operating mechanism of one of our several electric timing clocks. Here the visitor was given an opportunity to run the clock, change scoring numbers, blow the horn, and otherwise handle and experiment to his heart's content.

Most people just love to poke at buttons, pull levers, make something operate, handle objects, and try their skill—and we made sure to provide them with plenty of opportunity to do just that.

When the visitor had finished having fun with the electric scoreboard, the guide pointed out our table display as the next step in his tour. One table contained all of the professional books, from each of which emerged a ribbon streamer leading to white show cards identifying the required courses in which these texts were used. Each card contained the course number and a brief description of the course.

Another table display featured all of the professional magazines bound by volume, as well as a number of magazines in allied fields used as reference readings. A third table displayed a great many charts, graphs, and pamphlets that could be taken by the visitor. A fourth table was loaded with all types of game and physical education equipment, each piece of which was neatly labeled by a printed card.

Many of these items proved quite unfamiliar to the average visitor, and numerous questions were posed to the student guide assigned to this table. Here again the visitor could handle each piece of equipment that claimed his interest.

In this general area, there were two special printed announcements containing information on the functions, programs, and statistics for the Department of Physical Education.

Just behind the table display, a borrowed department store manikin was dressed in a new required P.E. uniform of red trunks, white T-shirt with red lettering over the

SEE IT for Sure!



THE SHOULDER PAD OF THE FUTURE!

It's NEW—years ahead!

Only shoulder pad with fiber parts covered
with shock-absorbing rubber.

Greater protection for players.

Ideal for practice because it protects
opponent, too. Another King-O'Shea

"first and exclusive."

See it for sure, at the

AMERICAN FOOTBALL COACHES' CONVENTION

King-O'Shea

CUSTOM BUILT ATHLETIC EQUIPMENT

1860 North Wilmot Avenue, Chicago 47, Illinois

(Division of Wilson Sporting Goods Co.)

Another NEW SCHOOL
WITH *Universal* ROLL-A-WAY
GYMNASIUM STANDS



East High School, Knoxville, Tenn., Architects, Rentenbach Engineering Co.



**CUSTOM BUILT FOR
EXTRA SAFETY,
STRENGTH, AND
SPACE SAVING**

The rapidly increasing preference for *Universal* Roll-A-Way Gymnasium Stands is evidenced by more and more installations in new schools such as this beautiful East High, Knoxville, Tennessee; also West High in the same city. Tested under varying conditions in hundreds of gymnasiums, *Universal* Roll-A-Ways meet the most rigid specifications. They are compact, yet roomy and comfortable . . . neat and attractive . . . afford perfect visibility . . . assure easy operation. Improved vertical filler boards under seats enclose the entire understructure from front view, add more rigidity to seat boards, and make the complete stands even stronger and more substantial. Engineered to fit individual specifications, *Universal* Roll-A-Way Stands provide the advantages of permanent installation plus the space-saving features of removable stands. Write today for catalog, prices and complete list of *Universal* installations. No obligation.

Universal
BLEACHER COMPANY

674 SOUTH NIEL STREET • CHAMPAIGN, ILLINOIS

Bleacher Experts for Over 30 Years

chest reading. "Nebraska Physical Education," gym shoes, and sweat sox.

In the interests of realism, the manikin held a badminton racquet in his right hand and a shuttlecock in his left hand, with a towel draped over his left shoulder. We strove to convey the impression of just going to or returning from activity.

To the rear of the manikin was a display of student-made intramural posters. They contained a variety of notices ranging from a coming event to a yearly schedule. The intramural display was supplemented by a large bulletin board display of current standings in team games, tournament pairings in individual sports, special notices, and other information.

PERSONAL APPEARANCES

Besides all these exhibits, the intramural phase of the display consisted of the appearance of a number of intramural individual and team champions at 15-minute intervals. At the time designated on a pre-arranged schedule, the teams or individuals were introduced with their trophy, medals, or certificates, and had their picture taken.

Several of the group champions that appeared included the winners in Class A and Class B Fraternity, Denominational and Independent Basketball and Volleyball; All-University Swimming, Handball, Deep and Shallow Water Basketball, Wrestling, Badminton, and Track.

On the rear half of Court 1, four golf putting practice areas were set up, replete with golf balls and putters. These saw continuous service. Two of the areas were carpeted and inclined with three cups to receive the balls, while the other two areas were flat carpeted practice surfaces with commercial putting cups on top of the carpet at each end.

As the guest passed from Court 1 to Court 2, or the middle third of the main floor, he arrived at a booth displaying certain items concerned with Phi Epsilon Kappa. An attendant, a member of the organization, answered all questions and volunteered other general information concerning the organization.

On Court 2, several games were in progress during most of the open-house visitation periods. Volleyball and badminton proved to be most popular. All of the equipment for these sports were available at the court areas, and two students were on hand to explain rules and help get the games started. A number of benches were also provided for visitors who needed a rest or who pre-

ferred to sit out the active game period their companions were enjoying.

It is questionable whether the space used for these activities was worthwhile. There were a dozen or more lighter recreational activities that could have been made available to the public in this area. In the future, this space probably will be devoted to such activities as dart baseball, dart bowling, indoor horse-shoes, deck tennis, ping pong, etc.

Student guides and signs directed our guests to the last third of our main floor space. This court contained several pieces of apparatus set up for use, with protective floor mats. Each set-up was labeled with a large printed sign to help people understand the nomenclature used in this activity.

Included in the exhibit were the springboard and long horse, high parallel bars, low parallel bars, flying rings, stationary rings, adjustable horizontal bar, non-adjustable high horizontal bar, climbing ropes, climbing poles, side horse, special tumbling mat, unicycle, and three trampolines.

Children accompanying their parents had a field day in this section, and many of the parents enjoyed some activity that was an entirely new experience to them. In fact, the adults had more thrills than the children. Expert gymnasts, members of the Nebraska varsity and freshman gymnastic teams, were on hand to assist, explain, and demonstrate all phases of the program.

As soon as a number of visitors appeared, a formal exhibition was given. At other times, an informal get-acquainted type of program was carried on.

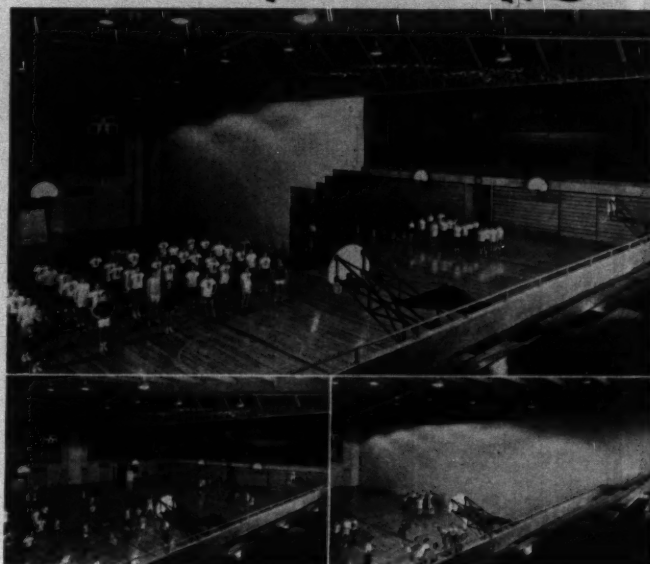
As an example, many people—young and old—wanted to try out the trampoline, a device they had seen in many stage shows, movies, circuses, television, and college demonstrations. They were given instruction in the basic exercises, then all the movements were demonstrated. When the participants were ready, they were assisted onto the trampoline. Several experienced spotters were located around the piece, and a suspended lunger was buckled onto the performer.

Most of the visitors clearly showed that they enjoyed this phase of the exhibit most. Its main attraction was the opportunity to participate in activities that had been denied to them.

In addition to all of the foregoing exhibits, displays, and demonstrations, a number of special features provided opportunity for further participation.

(Concluded on page 47)

Take a tip from Hinsdale High!



Stretch both space and appropriation with Folders-Way® Automatic FOLDING PARTITIONS by Richards-Wilcox

In these photographs taken at Hinsdale Community High School, Hinsdale, Ill., you can readily see how Richards-Wilcox Folders-Way folding partitions provide greatest flexibility to given areas of space. You can see how the partitions close to isolate the boys' and girls' gym classes from each other. Also, how the Folders-Way partition opens for conference games, and similar events, making the complete gym one vast playing arena and gallery.

But you can't see these EXCLUSIVE FEATURES:

1. **Fully Automatic.** All folding, unfolding, locking, unlocking, and sound-proofing operations are accomplished by the electric operator and its auxiliary mechanism. You merely turn the switch key—R-W does the rest.
2. **Positive, Silent Action Roller Chain Drive.** Will not slip, stretch, or break.
3. **Friction-Proof Track.** Ball-bearing hanger wheels are machined to provide a line contact with the $\frac{3}{16}$ " round cold-rolled steel bar runways of the track, assuring minimum friction and silent operation.
4. **Gymnasium Doors Are Full Three Inches Thick Over Entire Area.** This provides flush surface similar to a solid wall. Eliminates protruding butt-hinges in players' contact zone below seven foot level.
5. **Fully Automatic Floor Seals.** Self-adjusting to uneven spots in floor. No levers or manual effort required to operate.

For further information about R-W Folders-Way Automatic Folding Partitions, write, phone or wire our nearest office.

See an R-W Folders-Way Automatic Partition in operation at any of the Schools in the partial list at right, or write for address of installation nearest you:

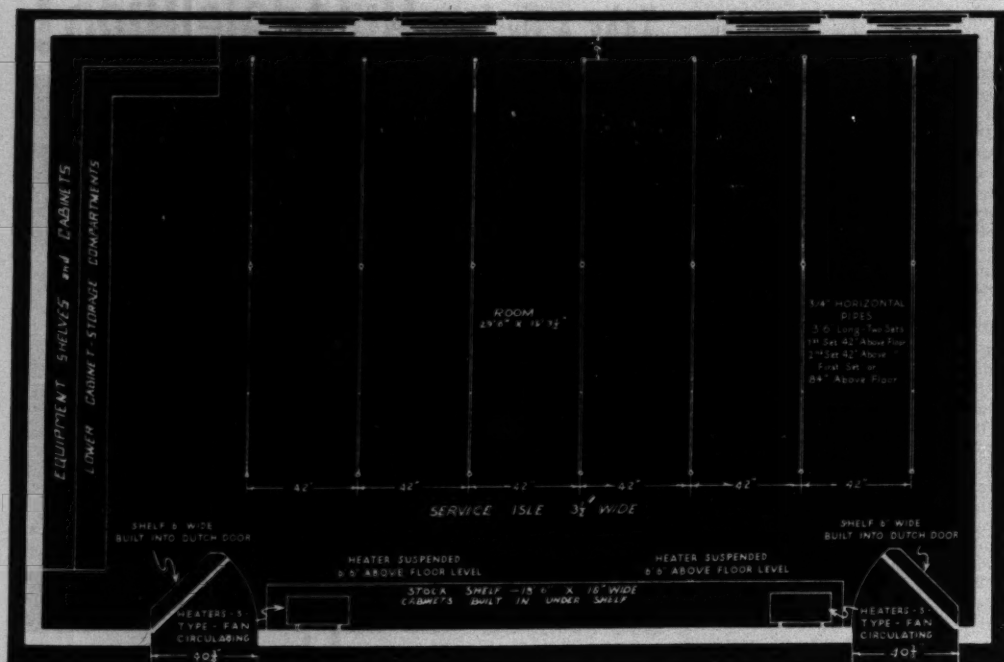
Kent State University, Kent, Ohio—Opening: 114' x 20'
Hinsdale Community High School, Hinsdale, Ill.—Opening: 127' x 28'
Arvin High School, Arvin, California—Opening: 143' x 28'
Kinkaid School Gymnasium, Houston, Texas—Opening: 71' x 21'
High School, Brookline, Mass.—2 Openings: 100' x 20' and 130' x 20'
Banks School, Bay City, Michigan—Opening: 60' x 18'



Richards-Wilcox Mfg. Co.

AURORA, ILLINOIS, U.S.A. • Branches in all important cities

Floor plan of Berkeley (Cal.) H. S.'s unique contribution to the handling of athletic uniforms.

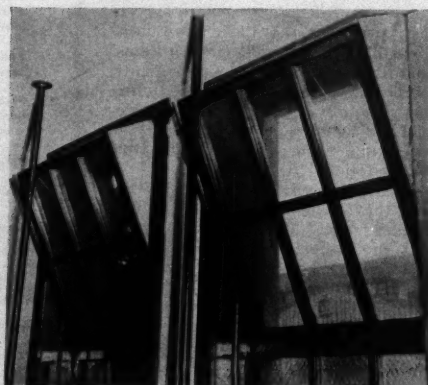


No. 1: Pipe framework for suspension (and drying) of uniforms.

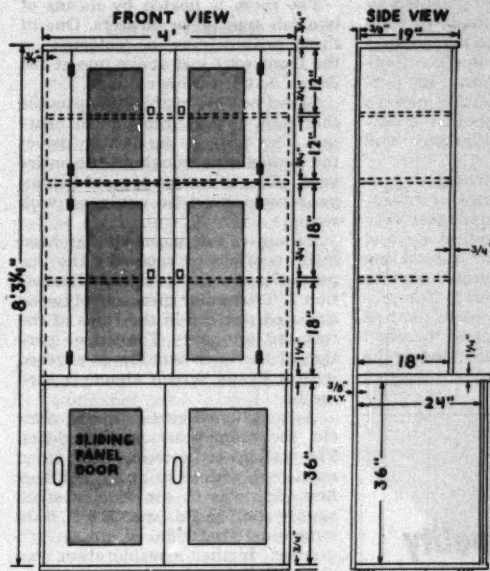
Combination Drying-Storage Room

By EMIL LAMAR

Track Coach, Berkeley (Cal.) High School

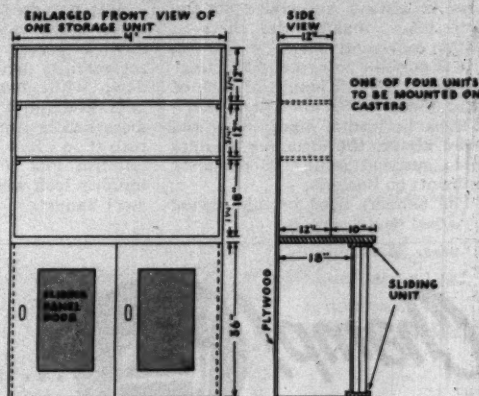


No. 2: Recessed windows provide outlet for warm air.



No. 5 (left): Working drawing of one of the four larger cabinets set up against wall. Having four-wheel casters, it is movable and features sliding doors in the lower portion and hinged doors closing in the shelves in the upper portion.

No. 4 (below): Blueprint of one of four smaller cabinets set against wall between the doors. Shelves above main shelf are open; wider shelves below are closed in with sliding doors.



AN up-to-date combination drying and storage room, representing the latest advancement in the handling of athletic uniforms, has been completed at Berkeley (Calif.) High School.

Some 18 months ago, the writer equipped himself with a 50' steel tape, a pencil, and a sheet of drawing paper, and moved into a vacant room in the physical education plant. The dimensions of this room were 29 ft. 6 in. wide by 19 ft. 3 1/2 in. deep by 12 ft. high.

After taking the measurements of the two doors that opened into the room, as well as the width of the wall between them, he came to the following conclusion:

By artfully exploiting the available floor space both in the center of the room and close to the walls, we could design an area that could serve both as a drying room and a storage room—a room in which 168 complete athletic uniforms could be suspended on steel hangers, which could be handed out in short order through Dutch doors (made by sawing the regular doors in half) by our student managers.

The drying section of the room took up most of the floor proper, consisting of a substantial pipe framework to accommodate the steel hangers upon which the uniforms were to be suspended.

A one-inch galvanized pipe and standard one-inch pipe fittings were used to complete the assembly. Illustration 1 clearly shows a portion

of the pipe framework as it is now set up.

The lower horizontal pipes that support the uniform drying hangers are 42 inches above and parallel to the ground.

Directly above the lower horizontal pipes are a series of horizontal pipes for supporting additional uniform hangers. These upper horizontal pipes are 42 inches above the lower ones.

Additional bracing for the horizontal framework has been obtained by extending vertical pipes from the horizontal pipes up to the ceiling. These vertical pipes are fastened to the ceiling by means of flanges. (See Illustration 2.)

The horizontal pipes that carry the load of the hangers are each about 13 1/2 feet long. Numbers are painted along these horizontal pipes at 13-inch intervals, so that each



No. 3: Dutch-door eye's view of room; note closed cabinet on right.

uniform hanger has a number. The numbers in each row are also stamped on plates fastened onto the pipes at the head of each row.

It thus becomes a simple matter to locate a uniform. All the boy has to do is call his number to the manager, and the latter can go direct to the corresponding pipe. The uniform is always suspended in the same place, making the check-in system extremely simple.

It is possible to suspend 12 hangers along the full length of each of these pipes. Since there are seven of these horizontal pipes below and seven above, the structure enables us to suspend some 168 complete uniforms on hangers.

The hangers used in this drying

room were invented and patented by the writer. They are made of strip steel, with each hanger being capable of supporting a complete football or baseball uniform. Its patented construction features permit air to circulate throughout the uniforms, drying them quickly and thoroughly.

Ample space (42 inches) is provided between the rows of equipment to permit the managers easy accessibility when moving up and down while issuing or suspending gear. The ample elbowroom may be discerned in Illustration 1. The picture shows how a complete football uniform and a complete baseball uniform look when suspended on the steel hangers.

The room is heated by means of two fan type speed heaters. One of these heaters may be detected on the front wall just above one of the Dutch doors in Illustration 3.

Speed heaters of this type provide thorough, speedy, economical heating. The fan on the heater drives the heated air throughout the entire area. (To utilize this type of heater, your room must be equipped with steam.)

An outlet for warm air has been made possible by recessing the upper windows as shown in Illustration 2. Triangular pieces of plywood are used to close in the sides of the recessed windows. The upper portion of the open window is covered with a heavy screen about $\frac{1}{4}$ inch mesh.

As mentioned earlier in the article, the room possesses two doors. The wall space between them, when measured, proved to be 19 feet. Our first idea was to construct a stock supply shelf in this span, 18 ft. 6 in. long and 18 in. wide.

After further consideration, we also decided to build four cabinets of equal dimensions in the school shop, and place them side by side against the wall between the two doors. This was done.

As you may notice in Illustration 4, the cabinets have open shelves above the main service shelf, and much wider shelves below which are closed in with sliding doors.

The ample width of these lower shelves permits the storage of new equipment such as football pants, jerseys, shoulder pads, and hip pads. The wood used in constructing these four cabinets consists mainly of half-inch plywood.

Later on, another set of four storage cabinets were built and set up against a side wall of the room. These higher cabinets feature sliding doors in the lower portion, and hinged doors closing in the shelves in the upper portion. A working drawing of one of these larger cabinets is shown in Illustration 5, while a section of the actual structure may be seen in Illustration 3.

Football uniforms are cleaned at the close of the football season and stored in the eight cabinets mentioned in this article. These eight cabinets completely conceal all football gear from view, thus protecting it from moths and other insects.

A small card, the size of a label, is slipped into a holder fastened to the outside of each cabinet door. On this card is a listing of every item stored within that portion of the cabinet. Athletic managers can thus take a complete inventory of the equipment in a matter of minutes.

Champ! ...in quality
...in LOW PRICE

S-14

Master
KEY CONTROLLED
COMBINATION
LOCK NO. 1525

KEY-CONTROLLED
School's master key
opens every locker

"one-key control" so convenient for school staff

"sure operates easily" students say

Board members say:
"The price is easy on our budget."

Thousands of combinations, with 3-number dialing, protect the student — yet only one school-owned master key will open every locker!

Here's the latest in padlock protection—tops in convenience and quality, yet in the bargain-price-bracket. It will pay you to consider Master.

Write today, to Dept. 4

MASTER NO. 1500
Long time school favorite. Constructed like No. 1525, but without key control. Master is also world-famous for laminated padlocks.

Master Lock Company, Milwaukee, Wis. • World's Leading Padlock Manufacturers

Open House

(Continued from page 43)

For example, in one of the classrooms an instructor presented a short introductory talk on fly tying, then proceeded to show slides depicting the steps in tying a trout fly. The visitors were seated around tables containing all the necessary materials and equipment for tying a fly, and after the slides were shown, they were taken through the actual process.

The instructor moved from person to person, assisting and answering questions. This was an exciting experience for many, and all proudly compared and passed around their completed fly for inspection and approval.

Many persons visited the student reading and recreation room, which contains professional reading materials, checker boards, pictures, charts, and graphs. It is used daily as a study room and as a den to talk over current happenings and read the daily papers.

The Department laboratory was also open for inspection. The equipment was set up and its use explained to all interested parties. Some of the equipment exhibited included a metabolic, cardiometer, impulse counter, hand dynamometer, back and leg dynamometer, spirometer, and a number of other special apparatus for measuring physical properties.

A barbell about 50 pounds in weight had a sign over it which read, "Can you lift 500 lbs?" Many people made good on their try to lift this weight. Others took a ride on our electrically operated exercise cycle, while still others tried out the rowing machine.

The Department equipment room was also opened for inspection. The care and storage of equipment was displayed, the records necessary for the proper functioning of the Department were explained, and the system of checking in and out of equipment, locks, towels, marking equipment, and many other procedures connected with game equipment, recreational, and class equipment were described. A tour was also made through the locker and shower rooms.

The staff was on hand in or near their offices during the entire open-house affair. In many instances, they were able to help furnish a better understanding of the breadth and scope of the program. All six permanent bulletin boards were given special attention, made attractive and brought up to date.



Ozite MAT FELT IS... **SAFE!** because

OZITE is guaranteed to be 100% free from broken needles and foreign matter which could cause serious injuries. And, in addition, it is thoroughly sterilized.



RESILIENT Genuine OZITE all-hair felt stays resilient longer. Laminated construction provides a firm, yet springy cushion that protects against injury.



OZITE Gym Mat Felt Durable will not bunch, spread or pack down—stands up under hard usage and retains its cushioning qualities throughout the life of the mat.



ECONOMICAL OZITE Gym Mat filler lasts longer because the hair fibre is practically indestructible. Its long-lived economy, plus absolute safety, make it your best buy.

Specify Genuine OZITE Gym Mat Felt as the filler the next time you order mats for your gymnasium. For further information, write to Dept. P-31.

AMERICAN HAIR & FELT COMPANY

MERCHANDISE MART, CHICAGO 54, ILLINOIS

IN FIELD OR GYM, KEEPS YOU IN TRIM

OLYMPIC CHAMPION

APEX No. 1

*The Balanced Action
Supporter*



U.S. Patent No. 22,334

THE O-C MANUFACTURING CO., LITTLE FALLS, N.J.
Quality Athletic Supporters Since 1908

The Double-Decker Gymnasium

(Continued from page 9)

than oblique patterned, concrete, permanent bleachers. Add to this the value of floor space throughout the school year for activities that will make the athletic program more effective—and building plans can take no other course.

In addition, every square foot of floor space under the balcony bleachers is usable for physical education activities. You can build equipment rooms, storage space, locker rooms, and special exercising rooms (as at Juniata College). Every inch of this space is usable because the ceilings are horizontal rather than oblique.

Folding bleachers assure extra seating capacity. Most building codes require 33 inches from back-to-back for permanent seats. Folding bleachers need only 22 inches, back-to-back. Thus, folding bleachers will seat 50% more people over the same floor area.

A building 94 by 134 feet will house a maximum size basketball court, and 2,400 people on two decks of folding bleachers at the sides of the court. For physical education classes, the main floor would be 95 by 94 feet. On the upper deck, two areas each 94 by 15 feet would be available; and underneath the upper decks two areas 94 by 20 feet would house the equipment, storage, locker rooms, etc.

The larger schools may build three floor levels for three tiers of folding bleachers, which can seat 6,000 people. The height of the inside wall for two decks must be 22 feet; for three decks, 31 feet. Additional height must be allowed, of course, for roof girders.

The seating layout in the Hinsdale gym consists of eight 16-foot sections of 11 rows each and four 8-foot sections of 11 rows each of recessed seats on the floor level (divided evenly on both sides), and twelve 16-foot sections of 12 rows each of wall attached seats for the balcony. Total seating capacity is 4,500.

Several points in the accompanying floor plan are worthy of special attention. First, note the three gyms afforded by the folding partitions—the main floor gym plus the two smaller balcony gyms.

Both the utility and appearance of

the layout may be improved by constructing the walls to permit complete recessing of the folding bleachers both downstairs and upstairs, and by having the folding partitions enclose the bleachers completely when not in use.

Note that the sight line of spectators is continuous from bottom row to top, providing clear vision of the playing field for all. Entrance and exit for all seats are furnished by aisles from the main floor.

Regardless of the type of building decided upon, don't let the architect tell the school board what to build. Call in the teachers and let THEM tell the architect what they as teachers need. Then he can draw his plans so that the teachers can do the most effective work when the classes arrive.

JUNIATA'S GYM

WITH the dedication of a new Memorial Physical Education Building, Juniata College of Huntingdon, Pa., has launched a new era in its physical education and athletic program.

Intercollegiate basketball will now have the facilities to develop freely, while the program in physical education and intramurals will be enormously intensified and broadened.

This ultra modern double-decker gym, erected as a memorial to the 675 Juniata men and women who served in the past war, combines utility and beauty. There's enough steel, wood, brick, and cement in the structure to daunt the amateur statistician.

Each of the main arches, for example, is constructed of 14 tons of steel, while the forty-eight 1,000-watt and sixty 300-watt fixtures provide 50 footcandles of illumination on the playing floor—more than enough for producing television or motion pictures.

The main floor is tremendous, being 115 feet wide and 188 feet long. Each side of the main floor is equipped with six sections of rolling bleachers, seating a total of 1,200 people. Future plans call for the installation of similar bleachers

on the mezzanine level, which will double the seating capacity.

The bleachers push back in accordion fashion. When recessed, they permit two 45 by 84 feet practice courts. The overall hardwood area of 91 by 113 feet is marked for a central court 50 by 94 feet. The maximum elevation is 40 feet.

The second decker of the building—the mezzanine—is located 10 feet above the main floor. It is supported from underneath by small I-beams extending from the main arch supports.

On this level are two 35 by 84 feet courts which are lined for basketball, tennis, volleyball, badminton, and handball. Since the mezzanine completely encircles the floor, it has also been lined as a track (14 laps to the mile).

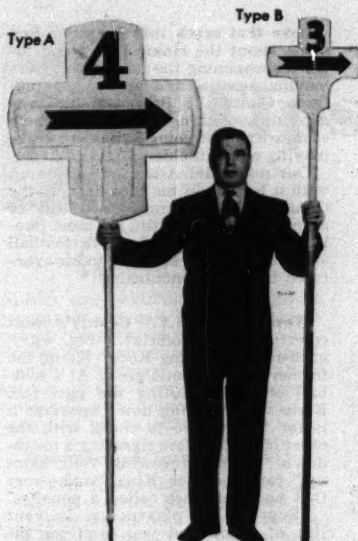
Located beneath the mezzanine level in the west end of the building are two classrooms and handball courts, an individual exercise room (for wrestling and boxing), and a visitor's dressing room with 70 lockers and adjacent showers.

Underneath the mezzanine on the opposite (east) end of the gym are a varsity dressing room (with 66 full-length lockers), a general physical education locker room (with 164 lockers), and training, equipment, drying, steam, and shower rooms.

At present, the variety of apparatus in the gym is limited, because of insufficient funds. However, there are six fan-shaped baskets to accommodate the three courts on the main floor, and equipment is available for tennis, volleyball, badminton, and handball.

The lobby is a specific memorial to Lt. Chalender Lee Leshner, a former Juniata athlete who was reported missing over Holland in 1943. Offices of the director of physical education and the coaches, rest rooms, and ticket booths are located off the main lobby.

An excellent conception of the Juniata College gym, showing exactly how the balcony encircles the floor proper, may be gleaned from the photo on page 9. The gym was formally dedicated on November 3.



MAKES EVERY SEAT A SEAT ON THE 50-YARD LINE!
The revolutionary, new
FOOTBALL DOWN MARKER

TYPE **A-\$3500** SHOW-DOWN FOOTBALL MARKER

- Ideal for large high schools, colleges and universities!
- Downs adjustable by the touch of a finger.
- Spins on bearing indicating down to end zone patrons.
- It is identical on both sides.
- Adjustable to over 6 feet in height.
- Can be seen with ease from all sides of the field.

TYPE **B-\$1450** SHOW-DOWN FOOTBALL MARKER

- Ideal for very small high schools—approximately 100 Senior H. S. students.
- It is identical on both sides.
- Downs adjustable by the touch of a finger.
- Adjustable to over 7 feet in height.
- Sells at \$14.50 plus sales tax and shipping charge.
- Order today—to insure immediate delivery.

ENDORSED AND PRAISED BY COACHES THE COUNTRY OVER

Following are a few of the thousands of schools now using "Show-Down" with great success:

Rose Bowl Game
 University of California
 University of Oregon
 University of Nevada
 Shriner's East-West

Sacramento College
 Brigham Young University
 Augustana College
 Colorado State College
 United States Army Teams

Stanford University
 University of Idaho
 College of the Pacific
 Denver University
 Oklahoma A. & M.

Dickinson College
 Over 1200 High Schools
 Washington State College
 California Aggies
 Los Angeles Professionals

University of West Virginia
 University of North Dakota
 Graceland College
 Colgate University
 Over 50 Parochial Schools

Sold Direct from the Manufacturers . . . Order from

DAVID BEMEL & ASSOCIATES 224 South Broadway, Rochester, Minn.



NEVCO SCOREBOARDS
for Football

The new Nevco model 6 football board and the model 150-W basketball board are two leaders in the Nevco line—built by a company that has taken the lead in scoreboard design and construction since 1934.

for Basketball

These are the scoreboards built today that you will want in your gym or on your field tomorrow. Remember, there is a Nevco board to fit your needs, and football orders should be placed NOW.

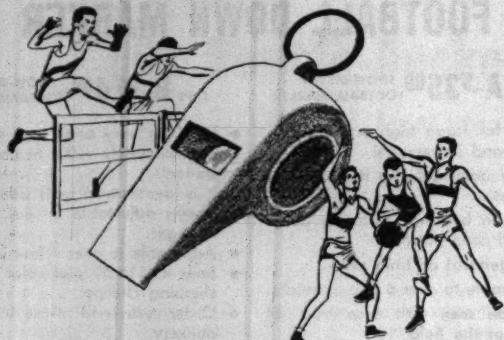


NEVCO ALWAYS LEADS — Write today for Bulletins Nos. 6, 18 and 19

NEVCO SCOREBOARD CO.

GREENVILLE, ILLINOIS

COACHES' CORNER



Please send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 351 Fourth Ave., New York 10, N. Y.

THOUGH Joe Sulaitis never went to college, the big Giant back has become one of the greatest blockers in pro football. It was the Chicago Bears, led by the mighty Bronko Nagurski, who taught him the facts of pro life. Joe was backing up the Giant line as the Bears came out of the huddle. Nagurski, in the fullback spot, grinned at the baby-faced rookie across the line. "Take it easy on an old man," he pleaded.

He then took the center snap, and crunched through the line straight at Joe. He flattened the rookie with such violence that Joe lay there stunned. Feebly he struggled to his feet, just in time to have another Bear bowl him over.

"Stay down, kid," growled the kindly ref, "before you get killed."

Stanley "Coach" Woodward, the former Amherst grizzer who is now the peer of football writers, was once asked to help get a boy into Amherst. A friend described the boy as a four-sport high school star—immense, fast, lion-hearted, tireless, and violent as a crime of passion.

"If you can get him into Amherst he'll be the greatest star they ever had," the guy declared. "Do you think he can get in?"

"How's his Greek?" Woodward inquired.

"Hell," snapped the other, "who cares about his Greek? He is Greek. It's his English I'm worried about."

Nobody ever held umpires in more contempt than Dave Altizer, star of the Minneapolis pennant-winning clubs of 1910-11-12-15. During those years, Altizer's feud with Jim Murray, the colorful American Assn. ump, was legendary. Once, for example, Murray called Altizer out at third on a very close play.

Altizer jumped to his feet and charged Murray. "What did you call me?" he yelled.

"Out," retorted the ump.

"Why, you blind bum, how'd a goat like you ever get a job umpiring? I am not out and you know it."

"Oh yes, you're out, not once but three times," snapped the ump. "You're out at third, you're out of the game, and you're out 25 bucks for sassin' me."

It was the big football game of the year. The Elephants were leading the Fleas when a Flea recovered a fumble and dashed 80 yards to within inches of the goal. Suddenly one of the Elephants, built like a hippo, stepped on the flying Flea and crushed him.

While the stretcher bearers carried out the body, his teammates scolded their clumsy tackle. "Why weren't you sporting about this, why didn't you tackle the Flea instead of killing him?"

The unhappy Elephant's trunk dropped to the ground. "Honest, fellers," he sobbed, "I didn't mean to step on him. I just tried to trip him."

"Maybe it wasn't an all-time mark," writes Coach Glenn Odham, of Newberry (Fla.) H.S., "but we're mighty proud of the record chalked up by our 1950 football team—384 points to the opponents' 31. That certainly should be some sort of record for a high school having only 19 boys!"

"Our opponents consisted of one Class C school (0-30 boys), seven Class B schools (31-55 boys), and two Class A schools (56-225 boys). In compiling a 90-1-1 record, Newberry, a Split T team, held one Class C and six Class B teams scoreless."

Maybe the number, 13, is just a foolish superstition, but you can't prove it by Coach Homer "Red" Leech, of Carrollton (Mo.) H.S. Liberty High racked up his Trojans 13-6 in the last game of the season, marking the 13th defeat for his teams in the past nine years. "Worse yet," moans Red, "though it was only our second loss of the season, it dropped us into fourth place in our conference."

Love that crack that Preacher Rue made about the rinkydink trend toward cheapening the home run by removing screens and shortening foul lines. Quoth the Preacher: "If they don't do something to help us pitchers soon, we're just going to have to begin playing our outfielders higher."

Our man, Mel Allen, also came up with a beauty in his broadcast of the Columbia-Navy game: "You can be sure they'll take to the air most likely." At that, we think Mel's football announcing is far superior to his over-rated baseball announcing.

Westchester (N.Y.) County's most colorful football official is big, witty, good-natured "King Kong" Klein, the former NYU athletic great. At a football officials' meeting the past fall, Klein was stressing how important it is for the referee to check with the other officials before signaling a touchdown. "Before throwing your arms up," cautioned the King, "make sure that no official has called a penalty."

"Suppose the players are in your line of vision and you can't see the other officials shaking their heads?" asked a young official.

"As far as most of our Westchester officials are concerned," retorted Klein, "you don't have to see them shaking their heads. You can hear them."

Egypt was playing Turkey in a Mediterranean Olympic Basketball Game at Alexandria last October. Watching the game on Howard Hobson's right was an Olympic gentleman from England. On his left was one from Denmark. Neither had ever seen a basketball game, and the Yale coach was kept busy answering questions. Egypt got off to a flying start. They raced down the court and scored five successive field goals to take a 10-0 lead Turkey called time.

"Egypt has a fast team, and they shoot very well," Hobson commented. "But the other team," said the Danish observer, "is it not proper to try to stop the opponents from scoring?"

Before Hobson could answer, the Britisher, having learned the game quickly, replied, "No, you see, it is a game of passing and shooting skill. One team tries for a goal; then the other team takes the ball and tries its turn at it."

It was with a bit of difficulty that Hobson convinced the observers that defense was ALSO part of the game.

The Brooklyn Dodgers received a suggestion that they hold a special day for mothers-in-law. "Seat them all behind the plate," the letter read, "then remove the screen and start Rex Barney!"

Billet doux from A. W. "Pop" Had-dleton, Haverford College track coach: "Last spring we gave a number of popsicle vendors permission to peddle their wares at our meets provided they picked up the wooden sticks thrown on the running track. Of



(ADVERTISEMENT)

Tips to Trainers

by **ROLLIE BEVAN**, Head Trainer
United States Military Academy

Sprained Ankle

Ankles are particularly susceptible to sprain and can keep an athlete out of competition for long periods. Preventive measures are consequently necessary. A good trainer applies ankle wraps before every workout, and tapes weak ankles daily and for all contests.

Treatment of Sprained Ankle

1. Soak the ankle in a vessel containing cracked ice and water for at least a half hour. Keep the tips of the toes out of the water to prevent aching. The ice solution retards hemorrhage in a badly sprained ankle.
2. After the ice treatment, place the foot in 110° F. whirlpool for about 10 minutes to stimulate circulation, then apply a compression taping. (If whirlpool is not available, use hot towels.) The

taping, when properly affixed, will help reduce the swelling so that by the third treatment it will be possible to apply heat and massage with Rub A-535.

As soon as the swelling is reduced and the ankle can move freely, start the boy walking in comfortable flat shoes with the ankle well taped. Increase the exercise as the ankle regains strength, until the boy is able to run again. Whirlpool, continued massage with Rub A-535, and proper taping will hasten full recovery.

Blisters

Since the athlete is particularly susceptible to blisters early in the season, the wise trainer will take precautionary measures. Applying a good quantity of grease inside the heel and toe of the shoe on the first day of practice will help to avert the blister menace.

If the blister has already formed,

drain the water with a sterilized needle after applying one-half per cent tincture of iodine. Enter from the outer edge to avoid creating an open raw space in the center of the blister. Reapply the antiseptic, then a bland ointment such as vaseline on a sterile gauze, and then place an adhesive felt doughnut over the area. Watch before and after each practice, and keep a close check to avoid infection.

(Extract from Mr. Bevan's booklet
"Athletic Injuries")

"Bevan's Mail Box"

Coaches and trainers are invited to write Mr. Bevan for advice on specific problems, to The Denver Chemical Mfg. Co., Inc., Dept. S-5, 163 Varick Street, New York 13, New York. A free copy of Mr. Bevan's booklet may also be obtained by writing to the above address.

ARNETT STARTING BLOCKS



- ★ The Finest, Most Efficient Starters and Time Savers on the Market
- ★ Used in Every Record Breaking Performance Since 1947!

THE ARNETT STARTING BLOCKS HAVE

(1) Individual Adjustment, r. or l. foot, tall or short men; (2) Replaceable Foot-Facings \$1.00; (3) Full Guarantee.

Some Records Made with Arnett Blocks

100-yard dash	Patton, U.S.C.	9.3
220-yard dash	Patton, U.S.C.	20.2
120 high hurdle	Attlessey, U.S.C.	13.5
220 low hurdle	Dillard, Baldwin	22.3
440-yard run	McKinley, Illinois	46.0
880-yard relay	U.S.C.	1:24

These Relays and Many More Have One for Each Lane

L. A. Colosseum	Calif.	Penn.
Drake	Modesto	Big 9
Fresno	Texas	Nat. AAU, '47-51
Long Beach	Kansas	N.C.A.A., '47-51
Olympic Trials		Compton Inv., '47-51
Official Block California Intersch. Federation		'47-51

SCHOOL PRICE: \$18.00 each, F.O.B. Inglewood, Calif. Not Sold Through Dealers.

RICHARD W. ARNETT

P. O. Box No. 527, Inglewood, California

course they reneged on their promise. One afternoon I thought I spotted one of these characters coming out the field with a dilapidated black case. Without looking at him too closely, I cautioned him about picking up the sticks. Well! He proved to be Charlie Neman, a Philadelphia Bulletin photographer.

"During the past fall, at the Swarthmore-Haverford football game (that famous clash that was both a football game and a sportsmanship contest), who should come along but our photographer friend carrying a splendid leather case. After reporting that he had been mistaken for an ice-cream vendor, his boss had decided that a representative of the Philadelphia paper that 'everybody reads' deserved only the best of cases.

"Incidentally, Eph Klotz, the half-miler you picked on your All-American H.S. Track Team, is here at Haverford. He is a fine, clean-cut young man who helped me quite a bit in cross-country the past fall.

"You may also be interested to know that I've kept every *Scholastic Coach* on file since I started subscribing to the magazine. My only regret is that I don't own every copy ever printed."

We love you, too, Pop.

Speaking of our All-American H.S. Track Team (published last September), here's a note from Rolla Buck, coach of Benny Garcia, the Alamogordo (N.M.) H.S. kid who was our No. 1 choice in the javelin.

Rolla tells us that "Benny is a great athlete who, besides being All-American in track, is a wonderful football player. I consider him to be the best punter in the state. On kick-offs he always places the ball in or over the end zone. Benny hopes to break the national javelin record this fall. At the state meet last spring, he tossed the spear over 200 feet, but fouled at the board."

Who is this guy Frank Merriwell? When it comes to delivering in the clutch, we'll take Bo Pierce, of Hattiesburg, Miss. After retiring from the Purvis, Miss., town baseball team, Bo settled in Hattiesburg, 12 miles away. One afternoon an emergency call came from his old teammates. The team was losing a championship game and needed help. So Bo climbed into his baseball uniform, drove the 12 miles to Purvis, and arrived to find his old club trailing, 2-5.

Put in as a pinch-hitter with the bases full, Pierce clouted a home run! He circled the bases, then jumped back into his car. He was back home 40 minutes and four runs after the telephone call from Purvis!

Little man, you had a busy day!

It was during a Little League title game at Williamsport, Pa., that the tiny catcher on one of the teams asked for time out to clean his mask. "What happened?" the ump asked.

"My bubble gum exploded!" chirped the lad.

SUM OF THE ALL-AMERICAN TEAMS

Position	United Press	Associated Press	International News	Collier's Coaches Assn.	Look Magazine	Sporting News	Final Winners
End	McColl Stanford	McColl Stanford	McColl Stanford	McColl Stanford	McColl Stanford	McColl Stanford	McColl
Tackle	Coleman Michigan St.	Coleman Michigan St.	Coleman Michigan St.	Coleman Michigan St.	Coleman Michigan St.	Coleman Michigan St.	Coleman
Guard	Ward Maryland	Ward Maryland	Mikonis Kansas	Ward Maryland	Beck Georgia Tech.	Ward Maryland	Ward
Center	Hightower S.M.U.	Moseley Kentucky	Hightower S.M.U.	Hightower S.M.U.	Moseley Kentucky	Hightower S.M.U.	Hightower
Guard	Richter California	Matuszak Tulsa	Richter California	Beck Georgia Tech.	Liotta Villanova	Richter California	Richter
Tackle	Weatherall Oklahoma	Toneff Notre Dame	Ulrich Illinois	Weatherall Oklahoma	Little Texas A. & M.	Weatherall Oklahoma	Weatherall
End	Carey Michigan St.	Carey Michigan St.	Faverty Wisconsin	Rice Howton	Williams Baylor	Carey Michigan St.	Carey
Back	Kasmaier Princeton	Kasmaier Princeton	Kasmaier Princeton	Kasmaier Princeton	Kasmaier Princeton	Kasmaier Princeton	Kasmaier
Back	Karras Illinois	McElhenny Washington	Matson San Francisco	Karras Illinois	Karras Illinois	Karras Illinois	Karras
Back	Parilli Kentucky	Isbell Baylor	Modzelewski Maryland	Gifford U.S.C.	Isbell Baylor	Parilli Kentucky	Parilli
Back	Lauricella Tennessee	Lauricella Tennessee	Lauricella Tennessee	Lauricella Tennessee	Lauricella Tennessee	Lauricella Tennessee	Lauricella

The ageless Satchel Paige was called on for a ninth-inning relief stint in Washington. Bill Veeck, the Browns' boss, told the pitcher that the team had to catch a train in less than an hour. Paige struck out the side on only ten pitches. "Sorry about that extra pitch," he apologized to Veeck as they boarded the train, "but the umpire missed one."

When City College and Brooklyn College clashed for the New York Metropolitan Soccer Conference crown, an international flavor was injected by players representing eight nationalities. City fielded men from Spain, Italy, France, Greece, Austria, Israel, and Nigeria, while Brooklyn boasted players from Germany, Trinidad, Syria, Egypt, and the Ukraine.

Some time ago we received a note from the director of the newly created department of physical education at The Queen's University of Belfast in North Ireland, asking for assistance in getting *Scholastic Coach* regularly.

The gentleman, A. McDonald, wrote: "Recently we had the good fortune to entertain at athletics a combined Yale-Harvard team, and it was through their good offices that I came to hear of your publication."

With Yale and Harvard men of distinction, it's always *Scholastic Coach* two to one.

Some time, when you have a couple of years to spare, try to figure out how the baseball writers could have picked Gil McDougald over Minnie Mino as the rookie-of-the-year in the American League.

We don't want to take anything away from Gil. The young Yankee is a mighty fine ball player. He hit .306, played two different positions well, and had a great World Series.

But his record doesn't compare with Minnie's. The White Sox whippet out-hit Gil by 20 points, made 50 more hits, 11 more doubles, 10 more triples, 11 more runs, 20 more steals, and 11 more runs-batted-in. Only in homers did Gil have the edge, 14 to 10.

Also remember that Mino played six different positions, led the entire American League in triples and stolen bases, and finished second in doubles and runs scored.

Now here's the joker. Only two weeks before, the very same fellows who elected McDougald American League rookie-of-the-year voted as follows for the most valuable player in the league:

1. Yogi Berra, N. Y. 184
2. Ned Garver, St. L. 157
3. Allie Reynolds, N. Y. 125
4. Orestes Mino, Chi. 120
5. Bob Feller, Cleve. 118
6. Ferris Fain, Phila. 103
7. Ellis Kinder, Bos. 66
8. Vic Raschi, N. Y. 64
9. Gil McDougald, N. Y. 63
10. Bobby Avila, Cleve. 49

Notice that Mino finished a good fourth, while McDougald was a distant ninth. Remember, this was for the most-valuable-player crown—a far, far higher honor than the rookie award. So how could the voters turn around two weeks later and pick McDougald over Mino?

Funny thing about football. A half-back can look like a million bucks. Set all kinds of records. Make all the All-American teams. Then turn out to be a dud in the pro game, which is the acid test for college stars.

Take Al Pollard. Big Al was the workhouse of the super 1950 Army team. The experts raved about him. They touted him as a sure-fire All-American.

Well, Al dropped out of school this season and signed with the N. Y. Yankees for a big bundle of \$. The experts predicted that Al would "burn up the league." He didn't burn up anything. Didn't even sing it. He failed to make the grade and had to be let go at the waiver price.

It's happened to many other super stars. Recall Bob Chappuis? After a sensational season at Michigan, Bob signed a record pro contract (\$100,000 for three years). He never showed anything.

HOW TO KEEP

GYM FLOORS

NEW

SHINING

SLIP-PROOF

1

Seal The Floor with

PERMA-SEAL

It soaks deep into the pores of the wood and gives it a non-porous, hard and durable seal that actually becomes a part of the floor. Provides a perfect base for markings and finish coatings. Easily applied with lamb's wool applicator. Non-streaking, odorless, inexpensive. PERMA-SEAL is the ideal preserver for gym floors.

Approved for heavy duty durability by
Maple Flooring Manufacturers Association

Free Brochure on floor maintenance
Write Today



2

Give It A Tough Surface with

PERMA-GYM-SEAL

Applied over PERMA-SEAL, it produces the toughest, most durable surface known — transparent, crack-proof, resilient, non-slip and quick-stop. A PERMA-GYM-SEAL surface resists scuffing, rubber burns, perspiration, oil, grease, sub-zero temperatures — even boiling water! Easily applied — very economical.

Approved by Maple Flooring Manufacturers Association

3

Keep It Safe and Beautiful with

SKIDPROOF

Transparent, emulsified plastic top finish. A single application produces a hard, skidproof, beautiful, and durable surface. Resists scuffing, rubber burns, other forms of wear. Easily removed and reapplied in half the time usually required for cleaning. Looks like a new floor finishing job — ready for play in an hour. Very economical — only one gallon covers 2000 square feet. Keeps floors safe, shining, wear-proof.

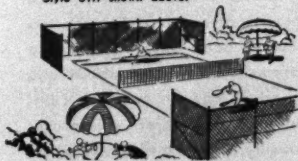
Tested and approved by Underwriters Laboratories

STEWART PRODUCTS

If the product you need is made of iron, wire or bronze,
it will pay you to write us, because . . .

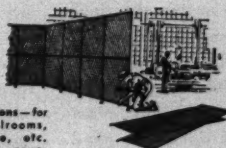


Stewart Chain Link Wire Fence is made in several weights and heights, with or without arrangement for barbed wire. Style 3TH shown above.



Tennis Court Fence—backstop as shown, or complete enclosures. Made in heavy-weight and medium-weight construction.

Stewart Metal Specialties meet virtually every school requirement. A few of the more popular items are illustrated. In addition to those shown are such products as: Iron Picket Fences, Skylight Guards, Wire Window Guards, Steel Sliding and Folding Gates; Settees (steel framework with wood slats), Flagpoles, Bronze Plaques, Stadium Seat Brackets and others. We'll be glad to send literature containing complete information. When writing please be sure to mention products in which you are especially interested.



Wire Mesh Partitions—for locker rooms, toolrooms, equipment storage, etc. Sectional. Fit any space. Easily and quickly erected.



Baseball Backstop. Sturdily built, 20' wide, 12' high with 10' wings set at an angle on each side. 4' overhang at top.

Stewart IRON and WIRE FENCES

Experts in Metal Fabrications, Since 1886

The Stewart Iron Works Co., Inc., 1975 STEWART BLOCK, CINCINNATI 1, OHIO
Stanley M. Stewart, President

Health All Over

A Dr. Brad Calabrese, of the World Health Organization, reports that perhaps no other word has been so successfully defined in the world, "Health." Its exact meaning has been officially agreed upon by 64 nations. It is defined as a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity. A change in this definition would require a two-thirds vote of the 64 nations that accepted it.

It is now recognized that a necessary part of every human being is social health—the ability to live in harmony with other people, traditions, religions, and social systems throughout the world.



Fruits are excellent sources of vitamins, minerals, and calories. Be sure to eat plenty of fresh fruit and dried fruit such as prunes, dates, figs, apricots, etc. Dried fruit can be easily carried in your school lunch and are recommended for your "sweet tooth." Remember, however, that they're very poor sources of vitamin C, the anti-scurvy vitamin. Fresh fruits and vegetables are excellent sources of this vitamin.

Charles E. "Smiley" Harper, head trainer of the U. of Kentucky national basketball champions, offers these suggestions for young athletes: "A balanced diet means more than just eating the right proportion of basic foods. It also means eating them at the right time, enthusiastically, and with the mind primarily on the job at hand. The last step toward a balanced diet is a hearty breakfast. Most everything served at breakfast is apt to be good for you."

It's quite possible that chewing gum may be used as a weapon against tooth decay. Dr. Orvalson, of Washington D.C., and Dr. Spivey, of Birmingham, Ala., are experimenting with a sugarless gum which contains an antibacterial chemical. The results have been encouraging.



This seems to be the reason for the indiscriminate use of vitamin pills. Normal boys and girls whose diets contain the proper vitamins, minerals, and proteins plus the necessary calories, don't have to take synthetic vitamins. Your family doctor is in the best position to tell you whether you need this supplementary feeding. If vitamin pills are prescribed by your doctor, stick to the recommended dosage. Poisoning from too much vitamin D may cause weakness, fatigue, loss of weight, nausea, and other serious illness.



Have you ever wondered why some people are left-handed rather than right-handed? Science too has wondered, but hasn't been able to come up with a satisfactory answer. Generally, about one person in 10 is left-handed, and it's twice as common in men. It is believed that heredity is partly responsible. Occasionally, left-handed children who have been forced to use their right hands have developed stuttering or some other type of speech defect.

POST ON YOUR BULLETIN BOARD

Care of Equipment

(Continued from page 22)

Other metal equipment such as jumping and vaulting standards can be painted.

Rubber Goods

Soap, water, and "elbow grease" are the necessary agents for keeping rubber goods clean. Oil or grease deteriorate rubber and should therefore be promptly removed. For this reason, too, cleaning fluids should not be used on rubber equipment. Avoid excessive exposure to heat.

EDUCATIONAL PROGRAM

The problem of stolen equipment cannot be solved without an educational program aimed at the student. In the past, goods taken from the athletic department have not been considered "stolen." The department should use every opportunity available to break down this concept and replace it with the idea that stealing athletic goods is a criminal act.

We must stamp out the idea that a fellow is a "big wheel" if he can parade the streets wearing a colored jersey stolen from the athletic department of his school.

Damaged or lost equipment is another headache. An efficient checking system which points the finger at the responsible student will do much to reduce losses of this kind.

However, coaches and physical education instructors should make it part of their classroom activity to instruct students in the proper use and care of the athletic equipment they handle. Students must be instilled with a healthy respect for the school's equipment. And this can't be done if they aren't given the "know-how" for care and use.

Making the equipment difficult to get at will reduce theft, and instruction in use and care of equipment will reduce loss and damage. But building desirable attitudes will do the job and do it in a more positive manner.

Students must be shown that money spent to replace lost or stolen equipment can't be used to buy extra types of equipment for their pleasure; it can't be used for better dressing room facilities; it can't be used for new gym lights or a new scoreboard.

Many of the suggestions offered above may be new to most teachers, since they've been developed by the writer during his years of coaching and physical educating.

ONE COACH TELLS ANOTHER...

"OUR ROBBINS

Ironbound

**CONTINUOUS STRIP
MAPLE GYM FLOOR IS
THE BEST ATHLETIC
INVESTMENT
WE EVER MADE!"**

And no wonder! Robbins Ironbound Continuous Strip floors combine every important gym floor quality:

- A better playing surface
- Permanent smoothness
- Years longer life
- Lower maintenance cost

You know the minute you step on a Robbins Ironbound Continuous Strip gym floor that it is a winner. It's not dead... not springy... it has just the right resiliency for fast, lively action without undue physical strain. But that's not all. Robbins Northern Maple doesn't splinter and it's permanently smooth. Robbins patented Ironbound method of interlocking with steel splines overcomes shifting, prevents bumps, minimizes wear and maintenance. For new construction or replace-

ment, Robbins Ironbound Continuous Strip is the finest gym floor you can have... yet it costs no more than ordinary floors.

For your protection Robbins Ironbound Continuous Strip flooring is sold only through authorized contractors. Write for details and name of nearest contractor. Dept. S12, Reed City, Michigan.

ROBBINS FLOORING COMPANY

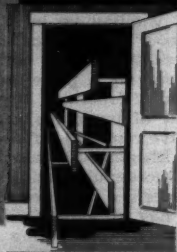
World's largest manufacturer of Maple Flooring
Reed City, Michigan • Ishpeming, Michigan



U. S. Pat. Off.

**LOW-COST
EXTRA
SEATING**

**in a minimum
of space**



**for use INDOORS or OUT
without DISMANTLING**

If you have a minimum of space this dual-purpose 3 Row Portable Bleacher is designed for you. It is 15 ft. long, 5 ft. deep and when turned on its back can be carried through any standard door without dismantling.

Playtime's 3 Row Portable Bleacher is ideal for use along your gym sidelines or outdoors when the space is limited. In gym-auditoriums it can be used on stage to provide extra seating for basketball games or other sports activities.

Playtime Bleachers available 3 to 15 Rows Individual, Elevated, Permanent and Continuous arrangements.

Representatives in 36 Cities.

"it's the PANEL that makes the DIFFERENCE"

PLAYTIME EQUIPMENT CORP.

MARS, PENNSYLVANIA



So You Have To Stage a Meeting!

IN THIS complex coaching era, a coach never knows when he'll suddenly be called upon to organize and conduct a meeting of some sort. It may be a school meeting, an alumni affair, a booster gathering, or the coach may suddenly find himself confronted with an association, club, or social group meeting.

Staging a successful meeting isn't too difficult, but neither is it a cinch. Here are some ideas culled from experienced men in such affairs.

Work from an outline is the most commonly repeated advice from the experts who know best. Where the beginner slips up oftenest is in trusting to luck or in his ability to cope with "anything that comes up." Invariably, an army of unforeseen little things will crop up and wreak havoc.

Make sure of reservations. Trusting to luck that a meeting place will be available is a sure way of winding up on a street corner. Good planning calls for setting a definite date as early as possible, reserving a place well in advance, and, if folks will be coming in from out of town, making certain they have reservations in the same hotel.

It's almost impossible to put over a successful meeting when the delegates are scattered all over town.

Get a good assistant. Nobody can do everything at once. The larger the program, the bigger will be the last-minute problems. You can't handle these and the routine details at the same time. So get yourself a helpmeet.

Caution: Don't press your secretary (if you have one) into service as the assistant. You'll need her for helping with those last-minute chores. Get a third party.

Make sure of who's coming. Suddenly finding 100 people at a meeting planned for 20 can throw the whole affair out of whack. It pays to get commitments as early as possible so that you'll know how

many will have to be accommodated. You don't want to hire a hall for 100 when only 20 will show up.

It's always wise to make a second check by mail, wire, or phone a few days before the meeting. Much of the success of a meeting lies in gearing accommodations to the size of the gathering.

Be sure everybody's comfortable. Proper attention is difficult to obtain when the group cannot relax. Comfortable chairs, air-conditioned rooms, good lighting, and proper acoustics are all very important. If the meeting calls for the taking of notes, make sure that tables, note pads, and perhaps even

By ERNEST W. FAIR

Bristow, Oklahoma

a supply of pencils are available. Notes cannot be taken very well while sitting on a folding chair.

Check everything ahead of time. Don't come in five minutes before the scheduled start of the meeting. That won't give you time to straighten anything that's gone amiss and which may throw off the whole schedule.

It always pays to make a "last-minute" check at least a half hour before the scheduled start. Many experienced men check up an hour ahead of time, so that they can easily meet any last-moment problems.

Plan demonstrations in advance. If demonstrations or presentations will be included in the meeting, they should be worked out thoroughly ahead of time so that they will go off without a hitch. An entire meeting may be disrupted by an unexpected break in the routine of the demonstration.

Arrange for all possible props. Props such as tables, speaker's stand, sound system, etc., all help

to put over a meeting. Continued speechifying can often become boring. By equipping the speakers with props with which to emphasize their points, you may relieve the monotony of the speechifying.

Closely check all equipment, such as motion-picture or slide projectors, amplifying systems, etc., before putting them to use. A motion-picture projector should be run the day before to make certain it's working and that there aren't any breaks in the film. Slides should also be checked beforehand to see that they're in proper order.

Plan extras for the audience. No matter how important the speeches are, the absence of such little things as a ready supply of cool drinking water, matches for smokers, pencils and papers, etc., may take away from their effectiveness.

Make arrangements for food, if the meeting is to be an all-day affair. If lunch can be handled in group fashion, the continuity between the morning and afternoon sessions can be preserved. Where everybody is left to his own devices, you'll have considerable difficulty getting the afternoon session started.

Set a schedule and keep it going. No meeting is ever really a success unless it's programmed so that each item on the agenda reels off according to schedule. Once the schedule has been determined, it should be adhered to closely. An uncertain speaking schedule, for example, may ruin an otherwise well-planned program.

Break up the speech continuity. If presentations, films, etc., are to be part of the program, intersperse them with the speeches to relieve the monotony. Schedule such "rest breaks" before and after particularly long speeches.

No blank spots. It's always a mistake to provide a blank spot on the program. This gives the audience a chance to leave the room, which is a mistake, for they'll seldom return in time for the next item on the agenda.

Be available. A sure way to wreck a meeting is to keep off in a corner somewhere swapping jokes or trick plays. A meeting will always run smoother when the person in charge is available to everyone all the time.

Settle financial matters. Nothing is more uncomfortable than having a worried-looking individual standing around waiting for his money. Set a time before or after the program, preferably afterwards, for handling such details.

Miami's Field House

(Continued from page 12)

distinctive features. It consists of three 17 feet 8 inches by 11 feet shower rooms, with 10 shower-heads in each.

The heads come at two different levels. On one side the heads are at the conventional 5-foot 6-inch level. But along the opposite wall, they are installed 6 feet above the floor for easier utility by the taller players.

At a convenient level along each wall is a built-in stone soap rack; and down the center of each shower room is a low wall or foot rest, 18 inches high and 6 inches wide, to facilitate the washing of feet and the tearing away of sticky remains of tape.

On the northwest side of the football unit stands the equipment room, 47 feet 7 inches long by 35 feet 10 inches wide. While it serves the usual purpose of such rooms, it does embrace several unique features.

The trainer's room is located in the southwest corner of this wing, and is 17 feet 5 inches by 13 feet 2 inches. Trainer Dave Wike's room leaves nothing to be desired, featuring a personally designed taping bench which has proved a real time-saver.

The room also includes two whirlpool baths, hydro collators for hot pads, infra red lamps, and a microtherm machine. Wike has also designed an ice machine, using a compressor from an old photo lab tank. This machine eliminates the worry of keeping ice on hand for medications. It manufactures ice overnight, and helps regulate the heat of water in hot-and-cold alternating baths during the day.

So far we've been discussing the units on the east side of the building. The west wing contains equipment, shower, and locker rooms for the baseball, basketball, boxing, and track teams.

The four equipment rooms, each 12 feet by 18 feet 4 inches, are located side by side against the north wall. Each room practically opens onto the particular locker section reserved for that sport in the main locker room directly across the hall.

This room includes 202 lockers, 12 x 24 x 72, for basketball, boxing, and track, and 40 lockers, 2 x 2 x 72, for baseball. It is served by shower rooms, each with 10 shower heads.

A coaches' room with 10 lockers and showers is also located in this unit, and is used by the coaches of the four aforementioned sports.

look to
LEAVITT bleachers



FOR ALL SEATING NEEDS

• LEAVITT TELESCOPING BLEACHERS

Unfolded, they provide safe, comfortable seating; when not in use, they fold to a 38" nested position, giving full use of your floor space.

• LEAVITT KNOCKDOWN WOOD BLEACHERS

Leavitt pioneered this type bleacher—your finest buy in economical easily moved wood bleachers.

• LEAVITT STEEL UNDERSTRUCTURE BLEACHERS

For sturdy, steel understructure bleachers that require only occasional moving, specify this type seating.

• LEAVITT PERMANENT STEEL STADIUMS

For greater seating requirements outdoors use ADD-A-SEAT Stadiums.

FREE ENGINEERING ADVICE AND LITERATURE GLADLY SUPPLIED ON REQUEST
Write, wire or phone

LEAVITT bleacher Co.
SINCE 1895

BOX 33, URBANA, ILL.

"LAMARWAY" DELUXE UNIFORM DRYING HANGERS

- Made of strip steel, built to last indefinitely.
- A sanitary method of hanging and drying uniforms.
- Players receive dry equipment daily—a real equipment saver.

"LAMARWAY" GROUND PLUGS... for All Types of Athletic Fields

- A simple and accurate method of remarking fields.
- For football—where yard lines intersect side lines, drill holes to exact depth with special ground auger, then drive in plugs—will stay put all year!

Send for literature today!

UNIVERSITY ATHLETIC EQUIPMENT CO.

1820 HOPKINS STREET

BERKELEY 7, CALIF.



The Crowther Charger Blocker and Tackler

Nationally recognized as the
best way to teach:

- FIERCE CHARGING
- HARD BLOCKING
- and SURE TACKLING

Order early...Supply limited
RAE CROWTHER CO., Ardmore, Pa.

Bowling on a Varsity Scale

By DONALD Y. YONKER

Chairman, Philadelphia Public H. S. Bowling Committee

TENPIN competition has assumed major proportions in Philadelphia since the close of the war. From modest beginnings in the late 1930's, there are now at least three leagues rolling annually and many individual schools conducting the activity on an intramural basis.

Eleven of the public highs form one league and six Catholic schools form another, both leagues meeting in first and second team matches weekly during the season. Four of the nearby suburban schools band loosely in informal competition every year, while two of the private schools conduct the sport in an organized manner.

Neighboring towns such as Phoenixville, Lancaster, and York in Pennsylvania; and Moorestown, Haddonfield, Collingswood, and Atlantic City in New Jersey, among others, round out the picture. Other areas may be administering school-boy bowling on a larger scale, but we doubt whether any of them can show such an upward spiralling trend.

Considerably more than 2,000 schoolboys enjoyed competitive bowling in Philadelphia last year. And since bowling ranks high as a participant sport in the nation, our program's contribution to the future of these youths is one of which our schools can be justly proud.

Worthy of note is the fact that there was school bowling in Philadelphia as far back as 1901. Official publications of Central High School and the files of the now defunct Philadelphia North American indicate that both interschool and intramural bowling was enthusiastically supported by the student bodies of that era. Schoolmen who were students at the time recall matches between Central High School, Central Manual Training High School, and Northeast Manual Training High School.

As with most sports in those early years, the students arranged schedules without supervision or guidance from faculties. School administrators were not generally sympathetic to the bowling academy atmosphere and the interscholastic aspect of the sport was short-lived.

The introduction of faculty-sponsored club activities during the depression gave new impetus to organized bowling for youngsters. Proprietors of academies were eager to have their facilities used in the slack afternoon hours, faculty men capable of providing leadership were available, and administrators and athletic directors had been won over to accepting the sport as a recreational activity.

In 1936, several schools mutually arranged home-and-home schedules. The first of these meetings was between the bowling clubs of South Philadelphia High School and South Catholic High School. This meeting, as well as others in different localities, is an example of out-of-league competition which has continued to the present date.

By 1941, six public high schools and as many parochial institutions had formed separate leagues with established schedules. During the war, bowling, along with other lesser activities, struggled to remain on the sports calendar. Much credit for its survival is due the coaches and sponsors of teams, as well as the administrative chairmen appointed by the governing sports bodies of the two school systems.

In 1946, the first Interleague City Championship was held. This competition was patterned after those in football and basketball, which had

already established the popularity and values of interleague championships.

The Interleague Commission responsible for this event is unique in itself. Handling all city championship contests between the Catholic and Public High School Leagues, it is neither political nor influenced by any outside organization.

The men comprising the membership are all athletic directors or administrators of the two systems, which have equal representation. Financial gains and losses are shared by the two leagues, and cooperative interest in the annual games and interleague goodwill are natural by-products.

Preparations for the annual city bowling championship are made in a meeting between the winning coaches (of the two contending leagues), the bowling chairmen, and the secretary of the interleague group. It has become traditional to hold the event in the lanes of a mutually agreeable neutral academy. The usual procedure is to establish any rules modifications, though American Bowling Congress regulations usually apply, and to set the date. The alleys selected are declared "off-bounds" until after the competition.

As in other Philadelphia City championships, competition is for The Bulletin Cup, permanent pos-

PHILADELPHIA INTERLEAGUE CITY CHAMPIONSHIP

Year	Contestants	Winner
1946	Pub.—Bartram H. S. Cath.—Northeast H. S.	Northeast Catholic H. S.
1947	Pub.—Olney H. S. Cath.—Northeast H. S.	Northeast Catholic H. S.
1948	Pub.—Northeast H. S. Cath.—West H. S.	West Catholic H. S.
1949	Pub.—South H. S. Cath.—Northeast H. S.	South Philadelphia H. S.
1950	Pub.—Frankford H. S. Cath.—Roman H. S.	Roman Catholic H. S.
1951	Pub.—Northeast H. S. Cath.—South H. S.	South Catholic H. S.

EVENING BULLETIN H. S. BOWLING TOURNAMENT

Year	Winner
1946	Upper Darby H. S.
1947	Upper Darby H. S.
1948	West Catholic H. S.
1949	Upper Darby H. S.
1950	St. James H. S. (Chester, Pa.)
1951	Olney H. S.

High Game—Edwin Arshet, Central H. S., 247 in 1951

High Total—Northeast Catholic H. S., 2,701 in 1950

session of which goes to any school winning the trophy three times. Inspection of the accompanying table will indicate that the titles have been pretty well distributed among member schools.

Another event contributing to bowling interest is The Evening Bulletin High School Bowling Tournament. This is administered each year by a committee of representatives from the various school divisions. This group conducts on two successive Saturdays during the season, an open tournament for five-man teams in two classes.

Those in Class A compete in a scratch contest of three games against opponents drawn at random. Teams must register an average of 750 or more to be eligible in this class. The averages are computed on the basis of at least nine games.

Teams entering Class B competition are those having less than a 750 average, again based upon nine games. Each team in Class B receives a handicap of 80% of the difference between their average and a scratch of 750. The handicap, so determined, is added to the actual score at the close of the three games. Thanks to this method, groups with lesser experience are able to compete equally with those just under the scratch average.

This tournament, for which trophies and medals are presented by *The Evening Bulletin*, attracts entries from a wide area around Philadelphia. Some 300 boys regularly participate in this annual event. Many outstanding performances have been recorded which compare favorably with nationwide school-boy marks.

Besides the competitions already noted, there are staged yearly the Lower Merion High school Bowling Tournament, where both team and individual results are scored; and the Philadelphia High School Indi-

HERE IT IS . . .

SEE THEM AT
A.F.C.A.C. IN
CINCINNATI



SAND KNIT

NEW NYLON RIBETT-KNIT FOOTBALL PANTS

- it's tough
- it's elastic
- fits like your skin
- lightweight and at popular prices

After years of research, Sand Knit has developed a new Ribett-Knit football pants of reinforced DuPont Nylon. The Ribett-Knit hugs the body like skin and the elasticity is all in the knit—no rubber yarns are used. The greatest improvement since the two-way stretch fabric! Actual All-weather tests on the gridiron, combined with repeated rugged laundering, proved Ribett-Knit football pants wear better and last longer. Features are hanging thigh guard pockets, zipper front and reversible knee pad pockets. Wear Ribett-Knit and feel the difference.

- 33N Natural—practice pants
- 33C All colors—game pants
- 53 Whipcord front, Ribett back
- 93 Skinner's Nylon front, Ribett back

For free illustrated catalog write to:

SAND KNITTING MILLS CO.

538 S. WABASH AVENUE, CHICAGO 5, ILLINOIS

Basketball Prescription Glasses \$19.50

All your varsity players who need glasses may be equipped within 4-5 days!

**PRECISION BUILT • SHOCK RESISTING
NON-SNATTERING**

Forward prescription, check or money order to:

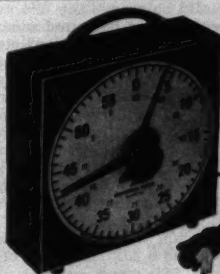
PRECISION ATHLETIC GOGGLE CO., ROCHELLE, ILLINOIS



LENSES are produced from Bausch & Lomb glass and hardened to meet U. S. Gov't safety specifications. Give size of present lenses when ordering.

FRAME is of non-corrosive white metal with elastic headband; regular temples for baseball and Officials.

Free Brochure on request



GRALAB SPORTS TIMER

- LARGE 8" DIAL • ELECTRIC SIGNAL
- MINUTE and SWEEP-SECOND HANDS

Used as Master Game Timer or as Time-Out Timer. Widely matched with Model 121-U Gralab Horn for timing of BASKETBALL, VOLLEYBALL, etc.

Model 165-S Timer \$22.95

Model 121-U Horn \$17.35

Order Today from your Dealer, or write direct to:

MODEL 165-S

DIMCO-GRAY CO., 207 E. 6th ST., DAYTON, OHIO

National JIM-FLEX GYM MATS

**Prove Longer Wear
and Better Protection**



Newt Loken, Gymnastic Coach at the University of Michigan, says: "Jim-Flex mats offer a complete, safe protection for all types of gymnastics."

Recommended by John J. Walsh, former University of Wisconsin coach.



During a period of almost 40 years, our craftsmen have developed their skill and profession to the highest degree for a better National Jim-Flex Mat at lower cost to you! Genuine Jim-Flex felt filling, firmly hand tufted, yet springy, with smooth surfaces for protection against abrasions. Write for complete price catalog No. 70.

National
sports equipment co.
364-374 N. Marquette Street
FOND DU LAC, WISCONSIN



NEED MORE SEATING?

There are safe, patented Hussey steel stands to meet your every seating requirement.

PORTABLES—that you can use indoors or out. Move as many sections as you need into the gym or from field to field—quickly, easily, economically.

PERMANENTS—engineered for safety and economy to your exact needs—linear, bowl or horseshoe types.

Whether you want accommodations for hundreds or thousands, it will pay you to investigate the economy and satisfaction of Hussey safe seating. Standard equipment at leading schools, universities and military camps.

Tell us your problem, and our engineering department will give you their recommendations without cost or obligation.

Write to 521 Railroad St. for FREE illustrated folder and prices. Also ask for Water Sports Equipment catalog.

HUSSEY MFG. CO. INC.
N. Berwick, Maine

vidual Bowling Tournament in which our schoolboys roll for a mythical individual championship.

Not the slightest hint of commercialism mars any of these ventures. Entry fees, thanks to a cooperative Association of Bowling Alley Proprietors, are set barely high enough to cover operating expenses and are well within reach of the small school or the individual performer.

The example of two large city school systems working in harmony in a cooperative effort and the presence of a benign wide-circulation newspaper, have made this interest and growth possible.

Another great milestone for school-boy bowling was recently attained when the conservative Public School Athletic League of New York City recognized bowling as a major sport. Three highly constructive features of the New York program include:

1. A course for high school instructors in learning how to bowl and how to teach it. This seminar, titled "The Theory and Technique of Bowling and Bowling Instructions," is currently being administered by Joe Wilman, the famed tenpin star.

2. Because a need was felt for a method of teaching fundamentals in school gyms, a bowling cage was evolved and is now being used experimentally at Brooklyn Tech High School. The cage is five feet and simulates the pit end of a bowling alley. With this device, students can be taught the approach, release, and spot bowling as well as the method of rolling for spares.

3. A special price of 30 cents per line is offered to schoolboy bowlers. This includes shoe rental.

New Books

(Continued from page 36)

tration of the program of measurement and evaluation.

Probably the most unusual feature of this splendid volume is the "Photo-code" presentation of tests and measurements. This feature translates long, detailed narrative writing into action. Both the administration of tests and the statistical calculations are simplified by pictorial illustration and step-by-step directions in connection with the illustrations. This reduces teacher explanation and blackboard work to a minimum, allowing more time for laboratory practice and the conduct of the course.

The book can wholeheartedly be recommended as a text for both elementary and advanced courses in measurement and evaluation, as a reference book on the subject, and as a text in elementary courses in statistics per se.

STARTING BLOCKS IMPROVED



Bresnahan Starting Blocks (Pat. 2144963)

1. Spike-resistant Rubber Face (Detachable)
2. Holds position rigidly
3. Adjusts to 5 angles of Foot
4. Compact (5" x 10") Weight—5 lbs.
5. Steel base

PRICE \$5.00 PR.

See your dealer or write direct to

1033 E. Burlington St.

G. T. BRESNAHAN
IOWA CITY, IOWA

Dow-Metal Crossbars For Pole Vaulting, High Jumping

- Meet all official specifications.
- Last 3 years or longer.
- Uniform all the way across.
- No danger of splintering.
- Over 10,000 of these now in use in leading high schools and colleges.

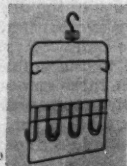
14' (jumping) 2.2 lbs. \$6.50
16' (vaulting) 2.6 lbs. 7.25

50¢ higher west of the Rockies
Prices subject to change without notice

Write for the name of your nearest dealer

K. & P. ATHLETIC CO.
1115 JEROME ST., MIDLAND, MICH.

LOCKER BASKETS
Woven and welded checking baskets.
UNIFORM HANGERS
Space saving uniform hangers



Made from heavy gauge, doubly welded steel wire. Available in sizes to meet your locker room needs. Write for descriptive literature.

**AMERICAN
WIRE FORM CORP.**
267-273 Grant Ave.
Jersey City, New Jersey

BASEBALL AND SPRING SPORTS RYAN'S H. & R.

DRY LINE MARKERS

ACCLAIMED AT THE N.C.A.A.
AT SAN FRANCISCO



★ Force Feed—Instant Shutoff—100 lbs. capacity.

★ Easy to fill and operate.

★ No Brushes or Screens to clog.

SAVES TIME AND MATERIAL

Send to Dept. 5 for booklet on four other models
H. & R. MFG. CO., LOS ANGELES 34, CALIF.

Ohio Wesleyan's Track

(Continued from page 7)

were excavated 15 inches below the surface of the ground to a level base. Then the drains which ran across the track and runways were covered with crushed rock to the base.

The first course in the track construction was laid with five inches of coarse rubble composed of large cinders, broken bricks, and tile leveled and rolled with a five-ton roller.

The next course was composed of five inches of clean $\frac{3}{4}$ inch sifted cinders which were leveled and rolled.

The top course was composed of five inches of $\frac{3}{4}$ inch screenings mixed in a concrete mixer with $\frac{1}{3}$ clay loam to $\frac{2}{3}$ cinders. This was spread level and rolled to a smooth surface with a one-inch fall to the inside curb.

The inside curb was constructed of reinforced concrete six inches wide by 18 inches deep, with four-inch surface vents flush with the track for surface drainage to the catch basins inside the curb.

I now believe that better drainage for the pole (inside) lane could have been obtained by sloping the track surface to the outside, thus draining the surface water away from the inside lane, keeping it dry.

The runways to the pits were all built in the same manner. The pole-vault runway is 120 feet, with a 12 x 16 foot pit at each end; while the broad-jump runway is 130 feet long, with a 6 x 18 foot pit extending 12 feet from the take-off board. This board is bolted to a concrete base and can be replaced by loosening two nuts.

All runways are three feet wide with concrete curbs at ground level along the sides and around the pits.

The pits were excavated the same as the runways and track, with coarse stone covering the tile drains and rubble or coarse cinders on the bottom. The pits were then filled with tan bark or a mixture of sand and wood shavings. Since built-up

pits minimize the jar for vaulters and jumpers, we like to build up our pits (with tan bark or shavings and sand) to 12 inches above the ground.

The curb of the broad-jump pit is level with the top of the runway so that the pit can be leveled off even with the take-off board.

The high-jump pit and approach is located at the extreme south end of the inner oval, where it doesn't interfere with other activities. A practice pit has been built against the fence at the end of the stands, and is used for competitive purposes whenever large numbers of entries have to be handled. (Over 100 high jumpers sometimes participate in our high school relays!)

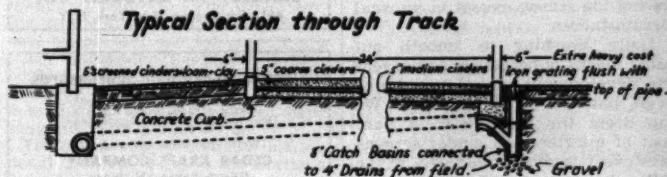
The high-jump approach is constructed of the same material as the track and in the same manner up until 20 feet from the pit, where it assumes a fan shape. The approach has a two-inch slope away from the pit for surface drainage, and is tile drained like the rest of the field.

The discus circle is located at the opposite end of the oval and is a 10-foot circle slightly raised above the ground surface. The football goal posts are removed each spring and the discus is thrown directly out on the infield of the oval.

A 90° legal throwing sector with arcs 100 feet, 110 feet, and 120 feet from the front edge of the ring (all drawn from the middle of the circle) are marked on the ground.

The shot-put circles are placed on either side of the scoreboard outside the track but inside the fence at the end of the field. The circles are made of six-inch concrete curbing 18 inches deep with toe boards bolted to the curbing. The inside of the circles are constructed in the same manner as the track, slightly above the ground level. The shot-put area is covered with fine cinders similar to the track surface.

The track itself is 24 feet wide all the way around with a straight-



Minerva # 145-A, 1/100 Second Timer

Single or Double Action
One revolution in 3 seconds.

Send for catalogue 152SC illustrating complete line of Stopwatches, particularly:

Minerva #144 New Sprint Timer

1/100 SECOND, ONE REVOLUTION PER SECOND, AN EXCLUSIVE MINERVA MODEL WITH UNBREAKABLE AND RUSTPROOF COIL SPRING MECHANISM, a feature found on no other timer. Specialists in repairing all makes.

M. DUCOMMUN CO.

580 FIFTH AVENUE, NEW YORK 19, N. Y.
DEPT. SC

AMERICAN
PLAYGROUND
DEVICE CO.

WORLD'S LARGEST MANUFACTURERS
OF FINE PLAYGROUND, SWIMMING POOL
AND PHYSICAL FITNESS EQUIPMENT

ANDERSON, INDIANA

A 24" by 28" Illustrated Chart
offering a complete course on

Defensive Baseball

- The perfect way to teach defensive baseball . . . saves hours of individual instruction in the field that can be utilized for hitting and fielding practice.
- Diagrams and explains over 75 key deployments for every defensive situation . . . tactics and techniques are analyzed position by position.
- Place it in your dressing room, and your players will do the rest . . . perfect material for rainy day practices.
- Will be your "assistant coach" for years . . . enables your players to constantly review every phase of defense.

Only \$3, postpaid

BERNERD EVANS

7110 Covey Road

Forestville, Calif.

Don't Let **ATHLETE'S FOOT**
Bench YOUR Players!
ALTA-CO BUILDS MORE
EFFECTIVE TEAMS!



In baseball, track, swimming and any sports competition, **HEALTHY** teams are **WINNING** teams. ONE member with painful, distracting Athlete's foot can impair the efficiency of your entire team.

Here's the Sound Tested Program
for **ATHLETE'S FOOT** Control:

- 1. ALTA-CO POWDER**
... for the all-important foot tub in your shower rooms. One pound to a gallon of water kills common Athlete's foot fungi in less than a minute! Non-irritating; harmless to towels. Easily tested for proper strength with Dolge Alta-Co Powder Tester.
- 2. ALTA-CO FOOT POWDER**
... for dusting, gives additional protection against re-infection. Sooths while drying between toes in shoes and socks, this potent but gentle fungicide does its work where Athlete's foot fungi flourish.
- 3. ALTA-CO 300 H.D. FUNGICIDE**
... for your daily, systematic washing of shower room floors. In economical solution (1 to 300), its action is both fungicidal and bactericidal, giving your floors the same hygienic sanitation you demand be taken by each user of your facilities.

Write for 36-page illustrated booklet,
"Athlete's Foot—A Public Health Problem."

DOLGE
WESTPORT, CONNECTICUT

way on each side. The west straightway is approximately 240 yards long and the east straightway 180 yards long; so that the straightway races for 100 yards, 220 yards, and the high and low hurdles are run on the west side, while the 440 and 880 races are started on the east straightway but finish on the west side.

The radius of the curves at the end of the track is 105 feet. The concrete curbs project two inches above the track both on the inside and outside, and serve as guides for easy marking of lanes. This is done by dragging a 16-foot 2" x 4" with spikes projecting at three-foot intervals when marking eight lanes, or at four-foot intervals when marking six lanes.

The marker is made of a 2" x 4" plank with 1" x 2" handles five feet long attached for marking the track. For dual meets the lanes are scratched on the track with the marker. Only for the large meets are the lines marked. They are then filled with dry lime from a lime marker.

Starting and finishing lines, along with marks for hurdles and offsets for relays, are painted on the curb to facilitate the marking of lanes for all types of races.

Since 1929, the Selby Field track has been used every year for varsity meets, the Ohio Conference championships, the annual Ohio High School Relays (which attract between 1,000 and 1,500 schoolboy competitors the last Saturday in April), and the Central District High School championships in which 400 to 500 boys participate in two classes late in May.

With such heavy traffic, maintenance is vitally important. We keep all traffic off the track until the frost leaves the ground in the spring; then, on the first good day, we roll the track and runways firmly with a power-roller. We float and roll twice a day until the track is firm.

For daily maintenance, we have managers and track men brush the track and runways with three-foot wide coarse street brushes after every practice. A tractor drags an eight-foot wooden float with three leveling edges, over the track once a week to keep it in shape during the season. The track is not rolled during the season except in unusual circumstances.

Daily brushing to smooth out spike marks is necessary to prevent the development of holes and uneven patches in the surface. We top dress the track with a light coat of quarter-inch cinder screenings every two or three years in the fall.

**RUBBER
BROAD JUMP MATS
FOR
GYMNASIUM USE**



Mats are 1/4" thick corrugated black rubber, with letters, numerals and lines of white rubber inlaid in mat. Overall size 3'x12'.

Approved by New York City Board of Education

PERFO MAT & RUBBER CO., Inc.
281 Fifth Ave., New York 16, N. Y.

Basketball Coaches Wanted

... in every state for wholesale and retail distribution of the Adams line of Basketball Score and Basketball Score and Scout Books. Liberal commission allowed. Each book provides a simple, roomy, accurate, economical system for scoring games. Books sell when shown.

1. Adams Official Basketball Score Book, JLA Sr. Rev. No. 4-4, 95¢

2. Adams Official Basketball Score and Scout Book, JLA Sr. Rev. No. 4-58, \$1.25

Order sample copies at above prices and ask for details of sales contract

JIM McQUAID DISTRIBUTING CO.
Vincennes, Indiana

NAME BRANDS TREMENDOUS \$-A-V-I-N-G-\$

- PERSONALIZED SPORTSWEAR**
Specially processed for school activities with your school name and design
- Gym class • Team • Club • Frat • etc.
 - DOZEN
 - RICHARD SMITH "T" Shirts..... \$ 6.50
 - UTICA "T" Shirts..... 9.50
 - JOHNSTOWN Gym Shirts..... 9.50
 - SCHOOL COLORS "T" Shirts..... 10.50
 - Gym Shirts—PEPPERELL—WHITE..... 8.50
 - Gym Socks—25% Wool..... 4.75
 - 50% Wool..... 6.00
 - 100% Wool..... 8.00
 - School Colored Taps..... 7.25
 - BIKE Supporters—No. 58..... 6.00
 - No. 10..... 7.50
 - SWEAT SHIRTS—16 in..... 15.75
 - UTICA Bodyguard..... 15.75
 - UTICA School Colors..... 22.75
 - SWEAT PANTS—UTICA Silver Gray..... 21.00
 - UTICA School Colors..... 23.00
 - BUY 3—4 ITEMS FOR GYM UNIFORMS AND SECURE SPECIAL DISCOUNTS
 - for 2 items 5% • 3 items 7% • 4 items 10%
 - FREE new 1952 Catalogue—ready February 1952

Richard Smith Corp., 217 Centre St., N. Y. 13

GYMNASIUM and PLAYGROUND APPARATUS.
PORTABLE WOOD BLEACHERS and STEEL GRANDSTANDS.
SCHOOL DESKS, CHAIRS, TABLES.
BRADLEY M. LAYBURN CO.
461—8th Avenue, New York, N. Y.

Electric Basketball Scoreboards

While a limited supply lasts
Only \$172.50 less Cable—
No Moving Parts—Guaranteed
In Use All Over U. S.
Write for free information
CEDAR KRAFT COMPANY
Grand Haven, Michigan

Our spiked shoe athletes take pride in having one of the best college tracks in America for their daily workouts and home meets, and willingly assist in the daily care of their facilities.

Much of our success in building and maintaining our track is due to the pride and devotion of our field maintenance man, Bill Crowe, who, with a part-time assistant, cares for the Selby track along with 40 acres of other athletic fields.

Any school can have good track and field facilities if it will start with ground drainage and build up to a level surface from a good foundation. From there on, daily maintenance will keep the track and runways in perfect condition for championship meets.

GIRLS' BASKETBALL FILM

- **GIRLS' BASKETBALL FOR BEGINNERS.** 16-mm. black-and-white, sound. Running time, 20 min. Hollywood, Cal.: Bailey Films, Inc. \$75. (Rental, \$4.50 for three days.)

AN important new physical education film demonstrating the elements of girls' basketball as played by 13- to 15-year-old girls in an actual game situation, this film graphically presents the fundamentals, skills, rules, and team-play of the girls' game.

Specifically covered are court division, play positions, center throw, scoring, catching the ball, passing, dribbling, tie ball, shooting, free throw, violations, fouls, general game play, start of game, ball-handling, and good sportsmanship.

A Paul Burnford Production developed in collaboration with Helen E. Mindlin, of the Los Angeles City Schools, formerly N.S.W.A. chairman, Southern California, this film is suitable for girls of upper elementary through college age.

TENNIS, BADMINTON BOOKLETS

TENNIS and badminton instructors looking for some handy little instructional aids both for themselves and their classes will be interested in the 3" by 4" shirt-pocket size booklets being distributed free by the Cortland Racket Division of the Cortland Line Co.

Tennis Tactics is a 24-page booklet, illustrated with diagrams, which tersely presents such essential information as where to stand when serving, where to serve, when to go to the net, where to place the volley, etc.

The *Badminton Book* is a 16-page booklet showing how to set up the court for both singles and doubles, how to start play, how to score, basic equipment, etc.

For a free supply of these instructional booklets, write to the Cortland Line Co. at Cortland, N. Y.

MASTER COUPON

To obtain free literature and sample goods, carefully check items desired and mail coupon directly to Scholastic Coach Advertising Dept., 351 Fourth Ave., New York 10, N. Y.

Numbers in parentheses denote pages on which the advertisement may be found. Please check the items personally, and to be sure of getting the type of service or information you desire, refer back to the advertisement before checking the listing.

AMERICAN HAIR & FELT (47)

- ☐ Information on Ozite Gym Mat Felt

AMERICAN PLAYGROUND DEVICE (61)

- ☐ Catalogs on Playground, Swimming Pool and Physical Fitness Equipment

AMERICAN WIRE (60)

- ☐ Folder on Locker Baskets and Uniform Hanger

ARNETT, RICHARD W. (51)

- ☐ Information on Starting Blocks

BEMEL & ASSOCIATES (49)

- ☐ Information on Football Down Marker

BRESNAHAN, GEORGE T. (60)

- ☐ Information on Starting Blocks

BROOKS SHOE (18)

- ☐ Booklet on New Brooks-Tex Athletic Shoes

BROUWER'S (64)

- ☐ Price List on Football Shoe Repair

CEDAR KRAFT (62)

- ☐ Information on Electric Basketball Scoreboards

CHAMPION KNITWEAR (27)

- ☐ Complete Athletic Catalog

CONSOLIDATED LABS. (53)

- ☐ Brochure on Gym Floor Maintenance

CONVERSE RUBBER

- (Inside Back Cover)
- ☐ Basketball Yearbook

COURTLEY, LTD. (64)

- ☐ Information on Antiseptic Body Powder

CROWTHER, RAE (57)

- ☐ Information on Football Charger, Blocker and Tackler Sled

DENVER CHEMICAL (51)

- ☐ Manual on Athletic Injuries by Rallie Bevan

DIMCO-GRAY (59)

- ☐ Information on Electric Sports Timer

DUCOMMUN CO. (61)

- ☐ Catalog of Stopwatches

EVANS, BERNERD (62)

- ☐ Information on Defensive Baseball Chart

GENERAL ELECTRIC (39)

- ☐ Floodlighting Plans for All Sports

GENERAL SPORTCRAFT (2)

- ☐ Rules Booklets for Badminton, Deck Tennis, Shuffleboard, Table Tennis, Bat Tennis

H. & R. MFG. (60)

- ☐ Booklet on Baseball, Football, and Track Dry Line Markers

HAND KNIT HOSIERY (22)

- ☐ Information on Wigwam Athletic Socks

HANNA MFG. (31)

- ☐ Catalog of Pro Treated Batrite Bats

HILLERICH & BRADSBY (23)

- ☐ Famous Slugger Yearbook
- ☐ Official Softball Rules

HORN BROS. (4)

- ☐ Folder on Folding Partitions and Folding Gymseats
- ☐ Details on the "3 in 1" Horn Gym Plan

HUNTINGTON LABS. (21)

- ☐ 1951-52 Basketball Coaches Digest

HUSSEY MFG. CO. (60)

- ☐ Catalog on Steel Portable Bleachers
- ☐ Water Sports Equipment Catalog

INGRAM, SAM W. (33)

- ☐ Brochure on Portable Bleachers, Steel Bleachers, Concrete and Steel Stadiums

JOHNSON & JOHNSON (25)

- ☐ Catalog of V-Front Supporters

K. & P. ATHLETIC (60)

- ☐ Information on Dow-Metal Crossbars

KING-O-SHEA (41)

- ☐ Catalog of Football and Basketball Uniforms

LAYBURN, BRADLEY M. (62)

- ☐ Information on Gym and Playground Apparatus
- ☐ Information on Portable Wood Bleachers and Steel Grandstands

LEAVITT BLEACHER (57)

- ☐ Information on Bleachers for All Seating Needs

LINEN THREAD (17)

- ☐ Full Information on Gold Medal Nets for All Sports

SEE PAGE 64 FOR OTHER LISTINGS AND FORM FOR SIGNATURE

TRY ...
Courtley
ANTISEPTIC
DEODORANT
BODY POWDER
America's "No. 1 Refresher"

FOOTBALL SHOES REPAIRED
Write for Price List TODAY!
Brouwer's
our 50th year
 178 W. WISCONSIN • MILWAUKEE 3, WIS.

ADVERTISERS INDEX

AMERICAN HAIR & FELT COMPANY	47
AMERICAN PLAYGROUND DEVICE CO.	61
AMERICAN WIRE FORM CORPORATION	60
ARNETT, RICHARD W.	51
BEMEL, DAVID, & ASSOCIATES	49
BRESNAHAN, GEORGE T.	60
BROOKS SHOE MANUFACTURING COMPANY	18
BROUWER, S. J., SHOE COMPANY	64
CEDAR KRAFT COMPANY	62
CHAMPION KNITWEAR COMPANY	27
CONSOLIDATED CHEMICAL LABORATORIES	53
CONVERSE RUBBER COMPANY	3rd Cover
COURTLEY, LTD.	64
CROWTHER, RAE, COMPANY	57
DENVER CHEMICAL MFG. COMPANY, INC.	51
DIMCO-GRAY COMPANY	59
DOLGE, C. B., COMPANY	62
DUCOMMUN, M., COMPANY	61
EVANS, BERNERD	62
GENERAL ELECTRIC COMPANY	39
GENERAL SPORTCRAFT COMPANY	2
H. & R. MANUFACTURING COMPANY	60
HAND KNIT HOSIERY COMPANY	22
HANNA MANUFACTURING COMPANY	31
HILLERICH & BRADSBY COMPANY	23
HORN BROTHERS COMPANY	4
HUNTINGTON LABORATORIES, INC.	21
HUSSEY MANUFACTURING COMPANY	60
INGRAM, SAM W., & ASSOCIATES	33
IVORY SYSTEM	4th Cover
JOHNSON & JOHNSON	25
K. P. ATHLETIC COMPANY, THE	60
KING-O-SHEA	41
LAYBURN, BRADLEY M., COMPANY	62
LEAVITT BLEACHER COMPANY	57
LINEN THREAD COMPANY	17
MacGREGOR GOLDSMITH, INC.	14-15
McQUAID, JIM, DISTRIBUTING CO.	62
MARBA, INC.	26
MASTER LOCK COMPANY	46
MEDART, FRED, PRODUCTS, INC.	29
NADEN & SONS ELECTRIC SCOREBOARD CO.	34
NATIONAL SPORTS EQUIPMENT COMPANY	60
NEVCO SCOREBOARD COMPANY	49
NISSAN TRAMPOLINE COMPANY	35
NURRE COMPANIES, INC.	36
O-C MANUFACTURING COMPANY	47
PERFO MAT & RUBBER COMPANY, INC.	62
PLAYTIME EQUIPMENT CORPORATION	53
PRECISION ATHLETIC GOGGLE COMPANY	59
RAWLINGS MANUFACTURING COMPANY	3
REGAL AWARDS COMPANY	40
RICHARDS-WILCOX MANUFACTURING CO.	43
RIDDELL, JOHN T., INC.	2nd Cover
ROBBINS FLOORING COMPANY	55
SAND KNITTING MILLS	59
SKINNER, WILLIAM, & SONS	19
SMITH, RICHARD, CORPORATION	62
SPALDING, A. G., & BROTHERS	1
SPOT-BILT, INC.	37
STEWART IRON WORKS	53
UNIVERSAL BLEACHER COMPANY	42
UNIVERSITY ATHLETIC EQUIPMENT CO.	57
WILSON SPORTING GOODS COMPANY	6

MASTER COUPON

(See page 63 for other listings)
 (Numbers in parentheses denote page
 on which advertisements may be found)

McQUAID, DISTRIBUTING (62)

- ☐ Information on Basketball Score and Scout Books

MARBA, INC. (26)

- ☐ Information on Athletic Equipment Reconditioning

MASTER LOCK (46)

- ☐ Information on Key-Controlled Padlocks

MEDART, FRED (29)

- ☐ Book, "Physical Training, Practical Suggestions for the Instructor"
- ☐ Catalog on Telescopic Gym Seats, Steel Lockers
- ☐ Information, Acromat-Trampoline
- ☐ Catalog on Basketball Backstops, Scoreboards

NADEN & SONS (34)

- ☐ Electric Scoreboards and Timers
- ☐ Baseball Catalog
- ☐ Basketball Catalog
- ☐ Football Catalog

NATIONAL SPORTS (60)

- ☐ Price Catalog on Jim-Flex Gym Mats

NEVCO SCOREBOARD (49)

- ☐ Bulletins on Electric Football and Basketball Scoreboards

NISSAN TRAMPOLINE (35)

- ☐ Booklet, "Tips on Trampolining"
- ☐ Literature on Trampoline Parts and Accessories

NURRE COS. (36)

- ☐ Bulletin on All Plate Glass Banks

O-C MFG. (47)

- ☐ Catalog on Supporters

PERFO MAT & RUBBER (62)

- ☐ Information on Rubber Broad Jump Mats

PLAYTIME EQUIPMENT (55)

- ☐ Catalog on 3 to 15 Row Portable Bleachers

PRECISION GOGGLES (59)

- ☐ Brochure on Football and Basketball Prescription Glasses

RAWLINGS MFG. (3)

- ☐ Catalog

REGAL AWARDS (40)

- ☐ Catalog of Low-Priced Personalized Oscars

RICHARDS-WILCOX (43)

- ☐ Information on Automatic Folding Partitions

RIDDELL, JOHN T.

- (Inside Front Cover)
- ☐ Information on Suspension Helmets, Shoes, Balls, Track Supplies

ROBBINS FLOORING (55)

- ☐ Information on Continuous Strip Maple Gym Floors

SAND KNITTING (59)

- ☐ Information on New Nylon Ribbed-Knit Football Pants

- ☐ Catalog on Award Sweaters and Jackets, Basketball and Football Pants and Jerseys

SKINNER & SONS (19)

- ☐ Information on Skinner Fabrics

SMITH CORP. (62)

- ☐ Sportswear Catalog

SPALDING & BROS. (1)

- ☐ Catalog
- ☐ Sports Show Book

SPOT-BILT (37)

- ☐ Information on NST Track Shoes

STEWART IRON (53)

- ☐ Catalog on Wire Fences, Backstops, Partitions, and other Metal Specialties

UNIVERSAL BLEACHER (42)

- ☐ Catalog on Roll-A-Way Gym Stands and other Bleachers

UNIVERSITY ATH. EQUIP. (57)

- ☐ Catalog on Uniform Drying Hangers and Ground Plugs

WILSON SPTG. GOODS (6)

- ☐ Catalog

NAME _____ POSITION _____

(Principal, coach, athletic director, physical director)

SCHOOL _____ ENROLLMENT _____

CITY _____ STATE _____

No coupon honored unless position is stated January, 1952



World's Champions ROCHESTER ROYALS
...Fabulous HARLEM GLOBE TROTTERS
like hundreds of champion teams, wear

All Stars- exclusively!

These Features
HELP YOUR BOYS WIN GAMES

Championship performance on the court
demands the best in basketball footwear.

Whether you coach pro, semi-pro,
college or high school squads, you get
the best — and nothing but the best —
when you specify All Stars. Take a tip
from the champs — outfit your team with
America's No. 1 basketball shoes!

CONVERSE

Chuck Taylor

ALL STAR

BASKETBALL SHOES



CONVERSE RUBBER COMPANY
MALDEN 40, MASSACHUSETTS



SHOE-LOGY

Assembled in our factory is the accumulated experience of more years in the reconditioning of athletic shoes than in any other spot in the U. S. A.

The IVORY SYSTEM was first in the athletic shoe repairing field—we are still first—and expect to continue to stay out front.

Whenever you are in the vicinity of one of the largest shoe and leather centers of the country—places like Haverhill-Lynn-Salem-Peabody, Massachusetts—take the trouble to look up the IVORY SYSTEM—and see how athletic shoes and every other type of used athletic equipment is being given expert attention.



"IN A CLASS BY ITSELF"

Ivory System

PEABODY, MASSACHUSETTS

RECONDITIONERS
OF ATHLETIC
EQUIPMENT